THE

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FERTILIZER ANALYSES

Pages 4-24.

FERTILIZER REGISTRATIONS, Final Supplement, 1919, Pages 25-6.
FERTILIZER REGISTRATIONS FOR 1920, Pages 27-37.
BORAX IN FERTILIZERS, Page 38.

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H. B. McDONNELL, State Chemist.

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ADDRESS

Chemical Department, Maryland State College of Agriculture
COLLEGE PARK, MD.

ANALYSES OF

Fertilizers Sold in Maryland

BY THE SCHOOL OF CHEMISTRY

The Maryland State College of Agriculture

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The tables on the following pages are made up of the results of the Analysis of fertilizers made at the College from August, 1919, to February, 1920, inclusive.

The majority of the samples analyzed are obtained by our sampling agents, the samples being taken while the goods are in transit, on vessels, wharves, cars or stations, from farmers' wagons, barns, etc. It is impossible for us to analyze all samples we collect; duplicates are generally omitted.

When a sample has been sent in by a farmer, his name, or initials, will be found after the "place of sampling." If "place of sampling" is not given, the sample has been made up two or more samples taken at different places. Before sending samples of fertilizer for analysis, farmers should always send for blank forms and directions, stating the number of blanks wanted. One blank is required for each sample. No sample will be analyzed unless the proper blank form is used.

The figures in the columns headed "Ammonia," "Potash" and "Phosphoric Acid," are percentages, or pounds per hundred. To get pounds per ton multiply the per cent by 20. The columns headed "Found" contain the results found by analysis; those headed "Guaranteed" contain the essential parts of the guarantee as stamped on the bags.

The "Comparative Value Found" is calculated from the results of analysis as found in our laboratory: the "Comparative Value Guaranteed" is calculated from the manufacturers' guaranteed analysis as printed on the bags; in each case using the following schedule:

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*Resigned March 1.

SCHEDULE FOR CALCULATING COMPARATIVE VALUES.

In Mixed Fertilizers:

For Nitrogen, calculated as Ammonia	40	cts. per lb.,	$8.00 per unit
For Potash (K_2O)	15	cts. per lb.,	3.00 per unit
For Available Phosphoric Acid	7½	cts. per lb.,	1.50 per unit
For Insoluble Phosphoric Acid	2	cts. per lb.,	0.40 per unit
For Insoluble Phosphoric Acid when from rock	1	ct. per lb.,	0.20 per unit

In Dissolved Rock:

Available Phosphoric Acid	7½	cts. per lb.,	1.50 per unit
Insoluble Phosphoric Acid	1	ct. per lb.,	0.20 per unit

In Tankage:

For Nitrogen, calculated as Ammonia	40	cts. per lb.,	8.00 per unit
For Phosphoric Acid	3	cts. per lb.,	0.60 per unit

In Ground Bone:

For Nitrogen, calculated as Ammonia	40	cts. per lb.,	8.00 per unit
For Phosphoric Acid	3	cts. per lb.,	0.60 per unit

Special attention is invitated to the comparative values per unit in the above schedule. It is very much easier to make calculations on the unit basis. Thus, if Dried Blood containing 10 per cent of Ammonia sells for $8.00 per unit, it means that the selling price is the per unit value multiplied by the per cent of Ammonia, or in this case $80.00 per ton. In the case of a "Complete Fertilizer" with the analysis 2–8–2, if Ammonia is worth $8.00 per unit, Available Phosphoric Acid $1.50 per unit and Potash $3.00 per unit the value per ton would be $16.00, plus $12.00, plus $16.00 giving a value of $34.00 per ton.

Consumers, of fertilizer should, as a rule, purchase the "High-Grade" goods, as the price per unit and the cost of bags, handling, etc., is less for the actual amount of fertilizer received than is the case if "Low-Grade" fertilizers are used. The latter are frequently made by using large amounts of filler.

In the purchase of Acid Phosphate one should always demand 16 per cent goods or better. Acid Phosphate containing 18 per cent may sometimes be obtained. The consumers should be willing to pay more for the 18 per cent than for the 16 per cent goods. There is no excuse, whatever, for 10 per cent and 12 per cent Acid phosphate. It is made from the high grades by mixing in a make-weight or filler. Neither is there any excuse for Mixed Fertilizers containing less than 1 per cent of either Ammonia or Potash, if these are present. The Fertilizer Manufacturer's Association is now working on a scheme to eliminate "Low-Grade" fertilizers from the market and never use less than 2 per cent of Ammonia in an ammoniated fertilizer, never less than 2 per cent of Potash in fertilizer containing Potash, and not less than 14 per cent of total plant food, counting the Ammonia, Phosphoric Acid and Potash together. If this can be done, it will mean a great saving to the farmers, in the handling of extra weight, bags, freight, hauling, etc. However, the success of such a movement will depend to a considerable extent on the attitude of the buyer. If he insists on the stuff that is cheaper per ton, without regard to the amount of actual plant food, it is probable that he will be accommodated.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Senders initials when not Sampled by the College Agent.)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.				Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed.
							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	Alexandria Fertilizer & Chem. Co.,	**Alexandria, Va.**										
39029	Ammoniated Dissolved Bone....	Baltimore.....	2.13	2.00	2.04	2.00	1.22	.....	8.37	8.00	$36.21	$34.00
	American Agricultural Chemical	**Co., N. Y., N. Y.**										
39097	Acid Phosphate 14%.....	Baltimore.....	.....	.....	.....	.....	.62	.....	14.25	14.00	21.50	21.00
3-074	Acid Phosphate 16%.....	Baltimore.....	.....	.....	.....	.....	.87	.....	16.82	16.00	25.40	24.00
39104	Ammoniated Fertilizer.....	Union Bridge	1.79	1.00	.....	.....	1.50	.....	10.04	10.00	29.98	23.00
39221	Basic Lime Phosphate (Low Grade)	Cambridge.....	.....	.....	.....	.....	2.22	1.00	12.83	13.00	19.69	19.70
39165	Coon Brand	Baltimore.....	1.01	1.00	1.06	1 00	1.35	.....	9.17	9 00	25.56	24.50
39166	Dead Shot Phosphate 1916 (L. Gr.)	Baltimore.....	.56	.50	1.08	1.00	1.02	.....	8.16	8.00	20.37	19.00
39044	Fine Ground Bone.....	Baltimore.....	3.33	3.00	.....	.....	*24.75	*22.88	.....	.....	41.49	37.73
39180	Fish, Bone and Potash Mixture.	Ellicott City.....	2.06	2.00	1.14	1.00	3.65	.....	10.28	11.00	36.78	35.50
39045	Fish Guano.....	Baltimore.....	1.13	1.00	1.04	1.00	.87	.....	8.45	8.00	25.19	23.00
39124	General Crop Grower.....	Upper Marlboro...	1.08	1.00	3.94	3.00	1.10	.....	9.10	9.00	34.55	30.50
39181	H. G. Ground Bone.....	Ellicott City	4.11	4.00	.....	.....	*26.05	*20.59	.....	.....	48.51	44.35
39046	Matchless Potash Manure	Baltimore.....	2.10	2.00	2.12	2.00	1.12	.....	8.38	8.00	36.18	34.00
39030	Peerless Veg. and Grain Grower	Baltimore.....	2.06	2.00	5.05	5.00	1.12	.....	8.44	8.00	44.74	43.00
39167	Prodigy Brand Guano.....	Baltimore.....	1.95	2.00	5.38	5.00	1.27	.....	7.76	8.00	43.89	43.00
39075	Pure Bone Meal.....	Baltimore.....	5.05	4.50	.....	.....	*22.90	*21.51	.....	.....	54.14	48 91
39098	Red Dragon Guano.....	Baltimore.....	2.02	2.00	2.04	2.00	1.85	.....	12.15	12.00	41.25	40.00
39152	Royal Alkaline Bone..	Baltimore.....	.....	.....	4.05	4.00	1.22	.....	10.26	10.00	27.78	27.00
39232	Special Complete Fertilizer.....	.....	1.16	1.00	1.75	2.00	1.27	.....	8.47	8.00	27.75	26.00
39168	Special Potato and Tomato.....	Baltimore.....	2.02	2.00	3.26	3.00	1.52	.....	8.14	8.00	38.76	37.00
39211	Star Phos. with Potash (L. Gr.)..	Baltimore.....	.....	.....	1.52	1.00	1.35	.....	11.78	10.00	22.50	18.00

39169	Universal Compound	Baltimore	1.11	1.00	4.06	4.00	1.22	.....	8.01	8.00	33.57	32.00
39153	XX H. G. Phosphate & Potash	Baltimore	.....	.....	4.72	5.00	.62	.....	12.26	12.00	32.67	33.00
39202	White Oak Compound	Baltimore	1.04	1.00	2.12	2.00	1.20	.....	12.13	12.00	33.36	32.00
	A. A. C. Co., (Canton), Balto., Md.											
39125	Baker's Spec. Wht., Corn & Grs.	Relay	1.01	1.00	1.03	1.00	1.00	.....	9.74	9.00	26.18	24.50
39126	Baker's Standard Guano	Relay	2.51	2.50	1.08	1.00	1.42	.....	8.75	8.00	37.02	35.00
39212	Eagle Phosphate (Low Grade)	Baltimore	1.01	1.00	1.04	1.00	1.25	.....	7.42	7.00	22.83	21.50
39082	Harrow Brand Crop Grower	Thurmont	1.18	1.00	1.16	1.00	.77	.....	8.62	8.00	26.16	23.00
39083	Potato and Vegetable Manure	Thurmont	1.59	1.50	1.27	1.00	.90	.....	11.04	10.00	33.45	30.00
	A. A. C. Co., (Detrick), Balto., Md.											
39106	Special Ammoniated Compound	Linwood	1.01	1.00	1.02	1.00	1.45	.....	7.76	8.00	26.36	23.00
	A. A. C. Co., (Lazaretto), Balto., Md.											
39182	Ammoniated Phosphate	Ellicott City	1.09	1.00	1.24	1.00	1.20	.....	8.75	8.00	26.05	23.00
39133	Retriever Animal Bone Fert	Baltimore	2.41	2.25	1.60	1.00	3.30	4.50	9.64	9.00	39.86	36.30
	A. A. C. Co., (Susquehanna), Balto., Md.											
39170	Crop Grower (Low Grade)	Baltimore	1.01	1.00	1.02	1.00	1.30	.....	7.79	7.00	23.35	21.50
	A. A. C. Co. (Wheeler), Rutland, Vt.											
39084	Peerless Acid	Thurmont	.....	.....	.....	.....	.57	.....	14.38	14.00	21.68	21.00
39085	General Crop	Thurmont	1.01	1.00	.....	.....	1.10	.....	10.10	10.00	23.67	23.00
	A. A. C. Co., (Zell), Balto., Md.											
39086	Acid Phosphate 16%	Taneytown	.....	.....	.....	.....	1.20	.....	15.73	16.00	23.84	24.00
39087	Ammoniated Super Phos. (L. Gr.)	Taneytown	1.19	1.00	.....	.....	1.12	.....	8.52	8.00	22.75	20.00
39088	Dissolved Phos. and Potash	Taneytown	.....	.....	1.78	2.00	.88	.....	10.02	10.00	20.55	21.00
39089	Economizer Phosphate	Taneytown	1.01	1.00	1.06	1.00	1.12	.....	8.33	8.00	24.21	23.00
	American Fertilizing Co., Balto., Md.											
39000	Acid Phosphate H. G	Baltimore	.....	.....	.....	.....	.62	.....	16.15	16.00	24.35	24.00
39134	Acid Phosphate 12% (L. Gr.)	Baltimore	.....	.....	.....	.....	.92	.....	12.02	12.00	18.21	18.00
39047	Alkaline Mixture (L. Gr.)	Baltimore	.....	.....	3.06	3.00	2.20	.....	8.21	8.00	21.94	21.00
39171	Ammoniated Crop Compound	Baltimore	1.01	1.00	1.94	2.00	.90	1.00	9.43	8.00	28.41	26.40
39062	Amm'd Grain Reliable (L. Gr.)	Oakland	.60	.50	.....	.....	.77	1.00	10.96	10.00	21.55	19.40
39227	Best Grain and Grass Formula	Baltimore	2.01	2.00	4.04	4.00	2.02	1.00	10.28	10.00	44.43	43.40
39011	Dissolved Phosphate & Potash	Baltimore	.....	.....	2.16	2.00	1.97	.....	10.14	10.00	22.08	21.00
39147	Eagle Crop Grower	Baltimore	1.79	2.00	2.36	2.00	1 07	.....	8.59	8.00	34.72	34.00
39172	Excelsior Guano	Baltimore	2.44	2.00	5.04	5.00	1.50	1.00	8.03	8.00	47.29	43.40
39127	Fine Ground Bone	Upper Marlboro	2.87	3.00	.....	.....	*22.98	*22.94	.....	.....	36.75	37.76

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Senders initials when not Sampled by the College Agent.)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.				Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed.
							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	American Fertilizing Co., Balto., Md.											
39022	Fish and Bone Compound	Baltimore	1.74	2.00	3.08	3.00	1.97	1.00	8.84	8.00	$37.21	$37.40
39183	Fish and Bone Special	Ellicott City	1.79	2.00	.....	.....	1.30	1.00	12.85	11.00	34.12	32.90
39224	Formula for Wheat and Corn	Baltimore	.....	.....	4.90	5.00	2.29	.....	10.42	10.00	30.79	30.00
39148	Formula for Grain & Grass (L. Gr.)	Baltimore	.63	.50	1.44	2.00	1.80	1.00	11.24	8.00	26.94	22.40
39135	Grain and Grass Grower	Baltimore	1.13	1.00	3.04	3.00	3.32	1.00	10.38	9.00	35.06	30.90
39228	Premium Grain & Clover Mix	Baltimore	2.34	2.00	2.12	2 00	2.17	1.00	11.76	12.00	43.59	40.40
39173	Premium Phosphate & Potash	Baltimore	.....	.....	2.10	2.00	1.85	.....	12.56	12.00	25.51	24.00
39136	Prize Alkaline Phosphate	Baltimore	.....	.....	3.58	3.00	2.80	....	12.38	12.00	29.87	27.00
39174	Special Fish Guano	Baltimore	1.01	1.00	.....	.....	3.17	1.00	10.66	10.00	25.34	23.40
39108	Special Formula (Low Grade)	Hampstead	.65	.50	1.01	1.00	1.82	1.00	8.13	8.00	21.16	19.40
39462	Special Formula (Low Grade)	Bethlehem (S. W.)	.68	.50	1.28	1.00	1.30	1.00	9.19	8.00	23.59	19.40
	Armour Fertilizer Works, Inc., Baltimore, Md.											
39137	Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	.72	.....	17.07	16.00	25.75	24.00
39207	Bone Meal	Baltimore	3.09	3.00	.....	.....	*27.13	*22.00	.....	.....	41.00	37.20
39225	Cereal Special No. 1	Baltimore	2.18	2.00	6.32	6.00	2.17	.....	10.01	10.00	52.29	49.00
39076	Cereal Special No. 2	Baltimore	1.93	2.00	4.20	4.00	2.10	.....	10.49	10.00	44.62	43.00
39175	Cereal Special No. 3	Baltimore	1.91	2.00	2.40	2.00	1.97	.....	12.57	12.00	42.13	40.00
39109	Crop Grower	New Windsor	1.01	1.00	2.03	2.00	1.17	.....	7.69	8.00	26.18	26.00
39226	Grain Grower	Baltimore	2.35	2.00	2.44	2.00	2.22	.....	7.76	8.00	38.65	34.00
39077	1-10-0 Fertilizer	Baltimore	1.06	1.00	.....	.....	1.12	.....	10.26	10.00	24.32	23.00
39078	Phosphate and Potash No. 1	Baltimore	.....	.....	2.24	2.00	.35	.....	10.73	10.00	22.89	21.00
39138	Royal Ammoniated Fertilizer	Baltimore	1.01	1.00	4.04	4.00	1.52	.....	8.07	8.00	32.92	32.00

39451	Special Mixture	Mt. Airy (C. E. A.)	1.95	2.00			3.30		13.41	13.20	37.04	35.80
39139	Star Fertilizer	Baltimore					1.57		15.71	14.00	23.88	21.00
39063	Wheat, Corn & Oats Spec. (L. G.)	Accident	1.02	1.00	1.04	1.00	1.07		7.35	7.00	22.74	21.50
	Associated Chemical Co., Hagerstown, Md.											
39064	Ground Steamed Bone	Hagerstown	2.01	2.50			*28 18	*25.00			32.99	35.00
	Chas. E. Baechtel Hagerstown, Md.											
39065	Patriot	Hagerstown	1.06	1.00			.82		11.42	10.00	25.94	23.00
	Baltimore Fertilizer Co., Balto., Md.											
39128	Acid Phosphate 16%	La Plata					.50		16.62	16.00	25.03	24.00
39054	Bogar's 2-10	Bel Air	1.74	2.00			1.37		11.11	10.00	31.14	31.00
39129	Honest Ammoniated Bone	La Plata	1.89	2.00	2.18	2.00	.90		8.09	8.00	34.16	34.00
39184	Honest Crop Grower 1-8-1	Baltimore	1.18	1.00	1.08	1.00	.55	1.00	7.10	8.00	23.55	23.40
39176	Honest 2-12-2	Baltimore	2.05	2.00	2.07	2.00	1.67	1.00	12.07	12.00	41.39	40.40
39032	Honest 12-2	Baltimore			2.06	2.00	.62	1.00	12.56	12.00	25.14	24.20
39191	Honest Wheat & Grass Grower	Bel Air	2.22	2.00			1.82	1.00	11.35	10.00	35.52	31.40
39033	Old Honesty (Low Grade)	Baltimore	1.14	1.00			.87	1.00	8.02	8.00	21.50	20.40
39110	Special 1-10	Hampstead	1.02	1.00			2.40		9.87	10.00	23.93	23.00
	Baltimore Pulverizing Co., Balto., Md.											
39159	Grass and Wheat	Baltimore	2.02	2.00	1.92	2.00	2.50		7.09	10.00	33.56	37.00
39035	Harvest King	Baltimore	1.11	1.00			1.42		10.22	10.00	24.78	23.00
39185	H. G. Wheat Fertilizer	Baltimore	2 05	2.00			1.00		11.85	12.00	34.58	34.00
39223	Penniman's Spec. Guano	Baltimore	1.01	1.00	1.20	1.00	3.07		6.11	8.00	22.08	23.00
39203	Practical Fertilizer (L. Gr.)	Baltimore	1.01	1.00			1.12	1.00	7.93	8.00	20.43	20.40
39036	Royal Compound	Baltimore	2.42	2.00	1.42	1.00	1.57		7.74	8.00	35.86	31.00
39160	Spec. Spring & Fall Mix. (L.Gr.)	Baltimore			1.30	1.00	2.22		7.06	8.00	14.93	15.00
	Baugh & Sons Co., Balto., Md.											
39003	Acid Phosphate 16%	Baltimore					.77		16.37	16.00	24.71	24.00
39111	Alkali Super Phosphate	Maple Grove			2.03	2.00	1.12		10.74	10.00	22.42	21.00
39149	Ammoniated Super Phosphate	Baltimore	1.59	1.25			.90		10.03	10.00	28.13	25.00
39055	Animal Base Potash Compound	Conowingo	1.18	1.25	2.48	2.00	2.42		10.40	10.00	33.45	31.00
39130	Balanced Plant Food	Laurel	2.04	2.00	5.08	5.00	1.10		8.27	8.00	44.41	43.00
39004	Complete Animal Base Fert	Baltimore	1 96	2.00	1.04	1.00	3.42		9.33	10.00	34.17	34.00
39456	Dissolved Bone	Fairplay (J. R. D.)	2.42	2.50			.85		11.77	12.00	37.36	38.00
39037	Double Eagle Phosphate	Baltimore	2.13	2.00	1.08	1.00	2.05		8.58	8.50	33.97	31.75
39038	Durable Plant Food	Baltimore	2.08	2.00	2.40	2.00	2.40		8.52	8.00	37.58	34.00
39453	Durable Plant Food	Fairplay (J. R. D.)	2.02	2.00	2.56	2.00	2.60		9.07	8.00	38.49	34.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Senders initials when not Sampled by the College Agent.)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.				Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed.
							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	Baugh & Sons Co., Balto., Md.											
39079	Fert. for Wheat and Grass	Baltimore	2.12	2.00	.....	.....	1.10	.....	9.77	10.00	$32.06	$31.00
39090	General Crop Grower	Gaithersburg	1.01	1.00	1.06	1.00	1.80	.....	8.02	8.00	24.01	23.00
39013	Half and Half Mixture	Baltimore	1.55	1.50	.....	.....	7.67	.....	11.36	12.00	32.51	30.00
39186	Old Stand-By Dis. Animal Base.	Ellicott City	2.10	2.00	.....	.....	.87	.....	11.79	12.00	34.84	34.00
39056	Peninsular Grain Producer (L.G.)	Berlin	1.04	1.00	.....	.....	1.05	.....	9.20	9.00	22.54	21.50
39049	Phosphate & Potash Mixture	Baltimore	.....	.....	4.83	5.00	.97	.....	12.36	12.00	33.22	33.00
39091	Raw Bone Meal	Taneytown	4.39	4.00	.....	.....	*20.66	*20.50	.....	.....	47.52	44.30
39140	Soluble Alkaline Super Phos	Baltimore	.....	.....	2.12	2.00	1.37	.....	10.84	10.00	22.89	21.00
39161	Special Crop Grower	Baltimore	1.16	1.00	1.12	1.00	1.75	.....	8.96	8.00	26.78	23.00
39014	Special Potato Manure	Baltimore	2.08	2.00	1.09	1.00	2.02	.....	10.13	10.00	35.92	34.00
39039	Special Vegetable Compound	Baltimore	1.16	1.00	3.20	3.00	.87	.....	9.63	9.00	33.68	30.50
39204	Tankage	Baltimore	8.05	8.00	.....	.....	.....	.....	.....	.....	64.40	64.00
39080	Valley Special	Baltimore	1.37	1.25	2.72	2.00	1.95	.....	10.26	10.00	35.29	31.00
39099	Wheat Fertilizer	Baltimore	2.03	2.00	.....	.....	1.05	.....	10.60	10.00	32.56	31.00
	N. T. Bennett, New Windsor, Md.											
39112	Butcher House	New Windsor	1.13	1.00	2.52	2.00	1.95	.....	11.34	9.00	34.39	27.50
39113	1-11	New Windsor	1.01	1.00	.....	.....	1.97	.....	12.66	11.00	27.86	24.50
	Beckley Fertilizer Co., Half Way, Md.											
39066	Bone Mixture	Hagerstown	1.28	1.50	.....	.....	1.01	.....	14.02	14.00	31.67	33.00
	Bowker Fertilizer Co., Boston, Mass.											
39192	Farm and Garden Phosphate	Laurel	1.71	2.00	.92	1.00	1.50	.....	10.01	10.00	32.06	34.00

39193	Staple Phosphate	Laurel	1.11	1.00	1.84	1.00	1.22	.....	7.61	8.00	26.31	23.00
39132	Wheat and Corn Fertilizer	Dorsey	1.02	1.00	1.82	2.00	.90	.....	9.01	8.00	27.50	26.00
	C. H. Braun Sons, Halethorp, Md.											
39216	General Crop Grower	Owings Mills	2.20	2.00	2.72	2.00	5.77	.....	8.86	8.00	41.36	34.00
39217	Half and Half	Owings Mills	1.55	1.50	.....	.....	6.40	.....	12.06	12.00	33.05	30.00
	Bryant Fertilizer Co., Alexandria, Va.											
39162	Special Fish Mixture	Baltimore	1.38	1.25	3.38	4.00	3.30	1.00	9.20	8.00	36.30	34.40
	Central Chem. Co., Hagerstown, Md.											
39067	Acme Brand (Low Grade)	Hagerstown	1.02	1.00	.....	.....	1.40	.....	8.24	8.00	21.08	20.00
39068	Bone Mixture	Hagerstown	1.37	2.00	1.56	2.00	1.22	.....	9.25	8.00	30.01	34.00
39069	Dissolved Bone Compound	Hagerstown	2.03	2.25	.....	.....	4.60	.....	13.13	13.00	37.78	37.50
39070	Dissolved Phosphate	Hagerstown	.....	.....	.....	.....	.77	.....	16.06	16.00	24.24	24.00
39071	Grain and Grass Grower	Hagerstown	2.01	2.00	1.94	2.00	1.12	.....	11.58	12.00	39.72	40.00
39072	Pride of the Valley	Hagerstown	1.04	1.00	.....	.....	1.22	.....	10.70	10.00	24.86	23.00
39073	Special Bone Mixture	Hagerstown	1.76	2.00	.....	.....	.80	.....	10.10	10.00	29.55	31.00
39455	Special Mixture	Hagerstown (S. C.)	2.26	2.43	.....	.....	1.22	.....	14.08	12.00	39.69	37.44
39454	Special Mixture	Hagerstown (S. C.)	2.25	2.43	.....	.....	1.27	.....	13.75	12.00	39.14	37.44
	Chesapeake Chem. Co., Balto., Md.											
39194	Alkaline 10 and 4	Greensboro	.....	.....	4.05	4.00	3.00	.....	11.47	10.00	29.96	27.00
39050	Favorite Guano	Baltimore	2.12	2.00	2.02	2.00	1.07	.....	9.61	10.00	37.87	37.00
39005	National Crop Grower	Baltimore	2.17	2.00	2.04	2.00	1.20	.....	8.92	8.00	37.34	34.00
	John L. Clark, Ellicott City, Md.											
39187	Mixture 2-12-2	Ellicott City	1.67	2.00	2.02	2.00	1.40	.....	12.12	12.00	38.16	40.00
	Josiah Cope & Co., Balto., Md.											
39214	Ammoniated Fertilizer "AA"	Baltimore	2.05	2.00	.....	.....	1.32	.....	10.89	10.00	33.27	31.00
39208	Bone Phosphate	Baltimore	1.06	1.00	3.28	3.00	1.30	.....	9.35	8.00	32.87	29.00
39195	Fish Phosphate (Low Grade)	Rising Sun	.72	.50	.....	.....	1.70	.....	9.14	8.00	20.15	16.00
39218	Wheat and Grass Special	Baltimore	1.04	1.00	1.08	1.00	1.32	.....	9.04	8.00	25.65	23.00
	Crisfield Shell Lime Co., Crisfield, Md.											
1065	Crabolean (Crab Scrap)	Crisfield	4.87	.....	.....	.....	*4.22	.....	.....	.....	41.49	.....
	Wm. R. Dorsey, Ellicott City, Md.											
39188	Mixture "D" Revised 1916	Ellicott City	2.41	2.40	.....	.....	1.82	1.50	10.58	10.00	35.88	34.80
	Dudley & Carpenter, Balto., Md.											
39163	Monarch Phosphate & Potash	Baltimore	.....	.....	2.84	3.00	1.10	.....	12.61	12.00	27.66	27.00
39209	Special Wheat Mixture 12-3	Baltimore	.....	.....	3.04	3.00	1.70	.....	12.64	12.00	28.29	27.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Senders initials when not Sampled by the College Agent.)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.				Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed.
							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	Eureka Chem. Co., Balto., Md.											
39023	Grain & Grass	Baltimore	1.01	1.00	1.02	1.00	.65	.50	8.32	8.00	$23.88	$23.20
39196	No. 1 Fish and Potash (L. Gr.)	Rising Sun	.60	.50	1.03	1.00	.87	.....	8.16	8.00	20.48	19.00
	W. S. Farmer & Co., Balto., Md.											
39215	Acid Phosphate 16% H. G	Baltimore	.....	.....	.....	.....	1.12	.....	16.93	16.00	25.61	24.00
39205	All Crop Mixture No. 2	Baltimore	2.10	2.00	.....	.....	1.35	.....	10.95	10.00	33.77	31.00
39164	Pelican Guano 1916 (L. Gr.)	Baltimore	.53	.50	1.04	1.00	1.07	.....	8.14	8.00	20.00	19.00
39006	Potash Guano	Baltimore	1.28	1.00	4.03	4.00	.85	.....	9.08	8.00	36.29	32.00
	Farmers Fertilizer & Feed Co., We	**stminster, Md.**										
39092	Farmers Best	Westminster	2.05	2.00	.....	.....	1.70	.....	11.94	11.00	34.99	32.50
39093	Indian Chief	Westminster	1.03	1.00	.....	.....	1.00	.....	12.01	11.00	26.66	24.50
39094	No. 3 Phosphate (Low Grade)	Westminster	1.43	1.50	.....	.....	.72	.....	9.74	8.00	26.34	24.00
	Farmers & Planters Co., Salisbur	**y, Md.**										
39197	Fish Mixture	Salisbury	2.15	2.00	2.98	2.00	2.10	.....	8.17	8.00	39.24	34.00
39057	Fish Mixture	Salisbury	2.25	2.00	.....	.....	1.10	.....	10.70	10.00	34.49	31.00
39198	General Crop Grower	Salisbury	1.08	1.00	1.88	2.00	3.85	.....	9.32	10.00	29.80	29.00
39058	General Crop Grower	Salisbury	1.08	1.00	.....	.....	1.37	.....	12.05	11.00	27.27	24.50
39199	Potash Mixture	Salisbury	.....	.....	5.12	5.00	.62	.....	10.76	10.00	31.62	30.00
	Griffith & Boyd Co., Balto., Md.											
39177	Acid Phosphate 14%	Baltimore	.....	.....	.....	.....	.40	.....	15.12	14.00	22.76	21.00
39019	Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	.97	.....	15.72	16.00	23.77	24.00

39178	Animal Bone with Potash	Baltimore	2.08	2.00	1.28	1.00	.47		8.62	9.00	33.60	32.50
39040	Cereal Plant Food	Baltimore	1.19	1.00	1.22	1.00	1.47		9.10	8.00	27.42	23.00
39150	Economizer (Low Grade)	Baltimore	.72	.50	.54	.50	.62		8.34	8.00	20.14	17.50
39095	Farmers Bone Mixture	Rockville	1.91	2.00			.67		10.28	9.00	30.97	29.50
39041	Fish, Bone & Potash (L. Gr.)	Baltimore	1.76	1.75	1.05	1.00	.77		8.22	7.00	29.87	27.50
39024	Fish, Bone & Potash 2%	Baltimore	1.98	1.75	2.24	2.00	1.42		8.88	7.00	36.45	30.50
39015	Fish & Bone Mixture (L. Gr.)	Baltimore	1.76	1.75			.87		7.87	7.00	26.24	24.50
39100	Fish & Potash Guano	Baltimore	2.01	1.75	3.22	3.00	1.02		8.27	7.00	38.56	33.50
39154	Grain & Grass Grower	Baltimore	1.89	2.00			1.55		13.91	12.00	36.61	34.00
39179	Harvest Queen Phosphate	Baltimore	1.04	1.00	1.02	1.00	.50		10.15	9.00	26.81	24.50
39042	Peerless Fertilizer (L. Gr.)	Baltimore	.82	.50	1.48	1.00	1.37		9.25	8.00	25.43	19 00
39016	Peerless Mixture (Low Grade)	Baltimore	.72	.50			1.55		9.93	8.00	21.28	16.00
39025	Royal Potash Guano	Baltimore	1.09	1.00	1.92	2.00	1.55		8.33	8.00	27.60	26.00
39026	Special Grain Grower	Baltimore			1.52	2.00	2.00		11.18	10.00	21.73	21.00
39206	Spec. Royal Potash Guano	Baltimore	1.04	1.00	3.36	3.00	.92		9.06	8.00	32.36	29.00
39007	Stable Manure Substitute	Baltimore	3.51	3.50	3.76	4.00	1.85		6.23	5.00	49.45	47.50
39027	Standard Guano	Baltimore	2.12	2.00	2.32	2.00	.87		13.28	12.00	44.19	40.00
39155	Valley Fertilizer (Low Grade)	Baltimore	.80	.75	1.06	1.00	1.30		9.48	8.00	24.32	21.00
	Hampstead Fertilizer Co., Hampstead, Md.											
39114	Grass & Grain Grower	Hampstead	1.62	2 00	1 60	2.00	1.62		8.68	8.00	31.43	34.00
39115	Honesty	Hampstead	1.16	1.00	2.28	2.00	1.20		8.59	8.00	29.49	26.00
39116	1-8 (Low Grade)	Hampstead	.89	1.00			1.52		8.14	8.00	19.94	20.00
	S. M. Hess & Bro., Inc., Philadelphia, Pa.											
39059	Amm'd Spec. Fertilizer (L. G.)	Pocomoke	.51	.50			.62		9.01	8.00	17.85	16.00
39210	Keystone Phosphate 1-8-1	Baltimore	1.02	1.00	1.08	1.00	1.22		8.54	8.00	24.70	23.00
39222	Special Compound	Pocomoke	1.23	1.00	4.50	4.00	1.42		8.05	8.00	35.99	32.00
39020	Special Potato Manure	Baltimore	4.27	4.50	1.05	1.00	.87		8.57	8.00	50.52	51.00
39060	Special Wheat Fertilizer	Pocomoke	1.06	1.00	1.84	2.00	1.02		8.01	8.00	26.43	26.00
39101	Wheat & Grass Manure 1916	Baltimore	1.02	1.00	.88	1.00	1.12		9.07	9.00	24.86	24.50
	Home Fertilizer & Chem. Co., Balto., Md.											
39156	Farmers Choice 1-7-4	Baltimore	1.03	1.00	4.88	4.00	1.02		7.02	7.00	33.82	30 50
39157	½-8-2 Fertilizer (Low Grade)	Baltimore	.55	.50	1.84	2.00	1.12		9.24	8.00	24.23	22.00
39189	Quick Grower ½-8-2 (L. Gr.)	Baltimore	.61	.50	2 08	2.00	1.07		8.24	8.00	23.91	22.00
	W. H. Hood, Mt. Airy, Md.											
39117	Special Mixture	Mt. Airy	1.16	1.00			2.02		11.75	10.00	27.72	23.00
	Horsey, Roe & Co., Greensboro, Md.											
39200	Acid Phosphate 16%	Greensboro					1.57		16.54	16.00	25.12	24.00

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Senders initials when not Sampled by the College Agent.)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.				Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed.
							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	Hubbard Fertilizer Co., Balto., Md.											
39151	Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	2.35	.....	17.48	16.00	$26.69	$24.00
39017	Climax Phosphate	Baltimore	1.01	1.00	3.92	4.00	.62	.....	7.19	7.00	30.88	30.50
39119	English Compound	Mt. Airy	1.02	1.00	1.32	1.00	1.20	.....	8.11	8.00	24.77	23.00
39120	Excelsior Mixture	Mt. Airy	2.15	2.00	.....	.....	1.02	.....	11.16	10.00	34.35	31.00
39233	Farmers IXL	.....	2.64	2.00	2.02	2.00	.84	.....	8.06	8.00	39.61	34.00
39008	4-8-4 Fertilizer	Baltimore	4.03	4.00	3.64	4.00	.40	.....	9.16	8.00	57.06	56.00
39141	H. G. Potash Mixture	Baltimore	.....	.....	4.52	4.00	1.72	.....	11.35	10.00	30.93	27.00
39052	1-8-3 Fertilizer	Baltimore	1.08	1.00	3.07	3.00	1.87	.....	9.11	8.00	32.27	29.00
39142	Improved Guano 2-10-2	Baltimore	1.74	2.00	2.04	2.00	1.25	.....	12.87	10.00	39.85	37.00
39143	½-7-2 Fertilizer (Low Grade)	Baltimore	.53	.25	2.24	2.00	.75	.....	7.54	7.00	22.57	18.50
39081	Oriental Guano	Baltimore	1.01	1.00	.....	.....	1.67	.....	10.02	10.00	23.78	23.00
39121	Phosphate and Potash	Alesia	.....	.....	2.32	2.00	2.40	.....	10.38	10.00	23.01	21.00
39103	Potash Mixture	Baltimore	.....	.....	4.26	4.00	2.67	.....	11.09	10.00	29.96	27.00
39018	Pure Raw Bone	Baltimore	4.91	4.50	.....	.....	*23.94	*22.50	.....	.....	53.64	49.50
	M. P. Hubbard & Co., Inc., Balto., Md.											
39201	Acme	Chestertown	.82	1.00	3.62	4.00	1.72	.....	8.86	8.00	31.40	32.00
39144	Dissolved Phosphate	Baltimore	.....	.....	.....	.....	.25	.....	16.90	16.00	25.40	24.00
39145	Old Economy (Low Grade)	Baltimore	.51	.50	2.06	2.00	.45	.....	8.44	8.00	23.10	22.00
39146	Soluble Phosphate & Potash	Baltimore	.....	.....	2.06	2.00	.32	.....	11.19	10.00	23.03	21.00
39061	Special 10-4	Chestertown	.....	.....	4.17	4.00	.37	.....	12.67	10.00	31.59	27.00

	Koller Fertilizer Co., Seitzland, Pa.											
39122	H. G. Acid Phosphate	Parkton					.25		15.34	16.00	23.06	24.00
39123	Special Potato Grower	Parkton	.87	1.00	2.53	3.00	1.80		7.57	7.00	26.63	27.50
	Lancaster Bone Fertilizer Co., Lan	**caster, Pa.**										
39542	Potato, Fruit & Vegetable	Hagerstown	.68	1.00	.80	1.00	1.10		8.54	8.00	21.09	23.00
	Lancaster Chem. Co., Lancaster,	**Pa.**										
39501	Wheat Special	Rising Sun	.99	2.00			2.42	1.00	10.57	10.00	24.75	31.40
	Lister's Agricultural Chemical Wor	**ks. Newark, N. J.**										
39550	Buyers Choice Acid Phos. 14%	Baltimore					.62		14.22	14.00	21.45	21.00
39705	Crescent Amm'd Super Phos	Baltimore	1.96	2.00			1.57		11.12	10.00	32.99	31.00
39567	G Brand	Baltimore	1.08	1.00	4.04	4.00	.75		8.64	8.00	34.02	32.00
39568	Grain & Grass 1916	Baltimore			2.03	2.00	.57		10.29	10.00	21.64	21.00
39544	Harvest Queen	Baltimore	1.71	1.50	1.12	1.00	1.07		9.90	10.00	32.32	30.00
39664	King Bee Fertilizer	Boring	1.96	2.00	4.16	4.00	1.50		10.96	10.00	45.20	43.00
39665	Lime Phosphate (Low Grade)	Alesia					2.10	1.00	13.17	13.00	20.18	19.70
39778	1-8-2 Fertilizer	Baltimore	1.19	1.00	2.04	2.00	.90		8.69	8.00	29.04	26.00
39551	Phosphoric Acid & Potash	Baltimore			4.38	4.00	.67		11.97	10.00	31.23	27.00
39779	Special Crop Producer	Baltimore	1.09	1.00	1.04	1.00	1.20		8.33	8.00	24.82	23.00
39723	Special Wheat Fert. 1916	Baltimore	2.25	2.50	.80	1.00	1.62		8.20	8.00	33.35	35.00
39785	Squirrel Brand Fertilizer	Baltimore	1.21	1.00	.84	1.00	1.22		8.63	8.00	25.64	23.00
39502	2-8-2	Cambridge	2.12	2.00	2.10	2.00	1.25		8.19	8.00	36.05	34.00
	Martin Fertilizer Co., Phila., Pa.											
39652	Acid Phosphate 16%	Baltimore					.42		17.69	16.00	26.62	24.00
39597	Ammoniated Phosphate (L. Gr.)	Baltimore	.87	1.00			2.17		10.29	8.00	23.27	20.00
39797	Ammoniated Phosphate	Baltimore	1.11	1.00			2.50		9.87	12.00	24.69	26.00
39598	Crop Producer	Baltimore	1.04	1.25			2.52		10.36	10.00	24.87	25.00
39599	Diss'd Organic Comp. (L. Gr.)	Baltimore	.89	1.25	.52	.50	2.70		10.53	9.00	25.56	25.00
39786	Grain Grower 2-10-2	Baltimore	1.81	2.00	1.04	2.00	2.50		10.51	10.00	34.37	37.00
39787	1-8-4 Fertilizer	Baltimore	1.02	1.00	4.20	4.00	1.95		8.09	8.00	33.68	32.00
39788	1-8-2 Fertilizer	Baltimore	1.16	1.00	2.04	2.00	2.05		8.31	8.00	28.69	26.00
39814	1-9-3 Fertilizer	Baltimore	1.01	1.00	2.70	3.00	1.70		9.02	9.00	30.39	30.50
39757	Potash & Soluble Phosphate	Chestertown			3.04	3.00	.82		13.49	12.00	29.52	27.00
39695	Potash & Soluble Phosphate	Baltimore			3.52	3.00	.65		12.71	12.00	29.76	27.00
39736	Sure Grower	Baltimore	1.04	1.00	1.12	1.00	2.22		7.74	8.00	24.18	23.00
39653	2-10-4 Fertilizer	Baltimore	2.03	2.00	3.02	4.00	3.40		10.31	10.00	42.18	43.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Senders initials when not Sampled by the College Agent.)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.				Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed.
							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	Maryland Milling & Supply Co., Sykesville, Md.											
39666	Acid Phosphate 14%	Sykesville	.....	.....	.....	.....	1.55	.....	14.52	14.00	$22.09	$21.00
39667	Acid Phosphate 16%	Sykesville	.....	.....	.....	.....	.42	.....	17.40	16.00	26.18	24.00
39668	Ammoniated Super Phosphate	Sykesville	.87	1.25	.....	.....	2.95	.....	10.22	10.00	23.47	25.00
39669	Warfield's Wheat & Grass Mix.	Sykesville	.96	1.00	1.12	1.00	2.80	.....	9.22	8.00	25.99	23.00
	Massey & Kilbourne, Chestertown, Md.											
39503	Acid Phosphate	Chestertown	.....	.....	.....	.....	.30	.....	16.57	16.00	24.92	24.00
39504	Crop Producer	Chestertown	1.04	1.00	3.06	3.00	1.25	.....	10.13	9.00	33.20	30.50
39505	Propagator (Low Grade)	Chestertown	2.49	2.00	.....	.....	1.70	.....	8.37	8.00	33.16	28.00
39506	10 & 5	Chestertown	.....	.....	5.08	5.00	.82	.....	12.60	10.00	34.30	30.00
39507	12 & 3	Chestertown	.....	.....	3.24	3.00	2.37	.....	12.02	12.00	28.22	27.00
39508	Wheat Phosphate (L. Gr.)	Chestertown	1.01	1.00	.....	.....	1.25	.....	9.70	9.00	23.13	21.50
	F. Mehring Fertilizer Works, Inc., Keymar, Md.											
39625	Acid Phosphate	Keymar	.....	.....	.....	.....	.62	.....	16.02	16.00	24.15	24.00
39626	Big 4	Keymar	1.18	1.00	2.40	2.00	1.77	.....	9.63	9.00	31.80	27.50
39627	Half & Half Mixture	Keymar	1.37	1.25	.....	.....	1.47	.....	17.53	15.00	37.85	32.50
	Miller Fertilizer Co., Balto., Md.											
39706	Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	1.02	.50	16.64	16.00	25.16	24.10
39586	Alkaline Mixture	Baltimore	.....	.....	2.02	2.00	.72	.50	12.16	12.00	24.44	24.10
39708	Amm'd Dissolved Bone No. 1	Baltimore	1.84	2.00	1.88	2.00	1.05	.50	8.48	8.00	33.50	34.20
39725	Buyers Mixture 1-7-4	Baltimore	1.06	1.00	4.04	4.00	.97	.....	7.96	7.00	32.93	30.50
39707	Buyers Mixture 12-4	Baltimore	.....	.....	4.46	4.00	.87	.....	12.42	12.00	32.18	30.00

39587	Clermont Brand	Baltimore	1.02	1.00	1.88	2.00	.67	.50	10.68	10.00	30.09	29	20
39588	Club Brand (Low Grade)	Baltimore	.56	.50	.64	.50	.70	.50	8.40	8.00	19.28	17.70	
39821	Harvest Queen (Low Grade)	Baltimore	1.28	1.25	.76	.75	.75	.50	8.88	8.00	27.66	24.45	
39589	Hustler Phosphate No. 1	Baltimore	1.04	1.00	1.20	1.00	.75		9.32	8.00	26.20	23.00	
39751	No. 1 Special	Baltimore	2.03	2.00			.92	.50	10.05	10.00	31.69	31.20	
39670	Pimlico	Forest Hill	2.97	3.00			.92		8.17	8.00	36.39	36.00	
39709	Potato & Vegetable Grower	Baltimore	2.01	2.00	1.04	1.00	1.10		8.40	8.00	32.24	31.00	
39671	Standard Phosphate	Forest Hill	2.88	3.00	1.10	1.00	.95	.50	8.55	8.00	39.55	39.20	
39737	W. G. Phosphate (L. Gr.)	Baltimore	1.09	.50	.62	.50	.95		7.56	7.00	22.30	16.00	
39672	Wheat & Grass Grower	Parkton	1.96	2.00	2.06	2.00	1.65	.50	12.73	12.00	41.62	40.20	
	G. Ober & Sons Co., Balto., Md.												
39682	Dissolved Phosphate	Rock Point					.32		15.40	14.00	23.16	21.00	
39686	Dissolved Phosphate	Baltimore					.32		15.62	14.00	23.49	21.00	
39545	Acid Phosphate High Grade	Baltimore					.37		16.67	16.00	25.08	24.00	
39569	Amm'd Super Phos. of Lime	Baltimore	1.86	2.00	2.04	2.00	1.57		8.33	8.00	34.13	34.00	
39724	Farmers Mixture	Baltimore	1.09	1.00	2.08	2.00	1.25		9.37	9.00	39.52	27.50	
39798	Independ't Amm'd Super Phos.	Baltimore	1.19	1.00	1.44	1.00	1.32		9.01	8.00	27.89	23.00	
39654	Liberty Fish Guano	Baltimore	1.30	1.25			.95		14.15	13.00	32.01	29.50	
39600	Peerless Potash Compound	Baltimore			2.22	2.00	.65		12.13	12.00	24 99	24.00	
39710	Pure Bone Meal	Baltimore	2.68	3.00			*25.63	*22.00			36.82	37.20	
39560	Pure Raw Bone Meal	Baltimore	4.61	4.50			*24.23	*21.00			51.42	48.60	
39673	Sea Bird Guano	New Windsor	1.74	2.00	4.04	4.00	1.67		11.59	10.00	44.10	43.00	
39601	Sol. Amm'd Super-Phos. of Lime	Baltimore	2.01	2.00	2.14	2.00	1.72		8.15	8.00	35.42	34.00	
39602	Special Plant Food	Baltimore	2.13	2.00	5.30	5.00	1.80		9.62	9.00	48.09	44.50	
39674	Stag Guano	New Windsor	1.01	1.00	4.02	4.00	1.87		10.09	9.00	36.03	33.50	
39696	Standard Potash Compound	Baltimore			4.04	4.00	1.27		12.28	12.00	30.79	30.00	
39711	10% Super Phos. & Potash	Baltimore			1.94	2.00	.52		12.81	10.00	25.14	21.00	
39687	Vim Potash Compound	Baltimore			5.06	5.00	1.42		12.64	12.00	34.42	33.00	
	Oyler & Spangler, Gettysburg, Pa.												
39628	Special	Emmitsburg	2.02	2.00			3.42		9.94	11.00	32.44	32.50	
39629	Super Phosphate (Low Grade)	Emmitsburg	1.19	1.00			1.77		10.09	9.00	25.37	21.50	
	Pacific Manure & Fertilizer Co., San Francisco, Cal.												
39809	Pulverized Sheep Manure (L.G.)	Baltimore	2.01	2.25	3.64	3.00	.20		.82	.75	28.31	28.13	
	Patapsco Guano Co., Balto., Md.												
39546	Acid Phosphate 16% H. G.	Baltimore					1.05		16.74	16.00	25.32	24.00	
39603	Blood, Bone & Potash 1916 (L.G.)	Baltimore	.60	.50	.90	1.00	1.35		8.28	8.00	20 46	19.00	
39570	Coon Brand Guano 1916	Baltimore	1.03	1.00	1.04	1.00	1.15		9.31	9.00	25.79	24.50	

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Senders initials when not Sampled by the College Agent.)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.				Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed.
							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	Patapsco Guano Co., Balto., Md.											
39752	Farmers Delight (Low Grade)...	Baltimore.....	1.04	1.00	.....	.....	1.00	.....	8.29	8.00	$21.16	$20.00
39738	Golden Crop Fertilizer 1916.....	Baltimore.....	1.67	2.00	.....	.....	1.32	.....	11.88	10.00	31.71	31.00
39726	Money Maker 1916.....	Baltimore.....	1.01	1.00	1.02	1.00	1.50	.....	8.35	8.00	24.27	23.00
39547	Planters Delight.....	Baltimore.....	2.12	2.00	1.84	2.00	1.55	.....	8.24	8.00	35.46	34.00
39604	Planters Favorite	Baltimore.....	2.08	2.00	1.94	2.00	1.27	.....	8.03	8.00	35.02	34.00
39548	Plant Food with Potash.....	Baltimore.....	1.06	1.00	2.02	2.00	1.10	.....	8.29	8.00	27.42	26.00
39727	Sea Gull Guano 1-8-1.....	Baltimore.....	1.26	1.00	.88	1.00	1.52	.....	8.46	8.00	26.02	23.00
39605	Soluble Phosphate & Potash....	Baltimore.....	.....	.....	2.14	2.00	.50	.....	10.02	10.00	21.55	21.00
39571	Vegetator.....	Baltimore.....	1.01	1.00	2.02	2.00	.82	.....	9.45	9.00	28.65	27.50
	Patuxent Fish & Oil Co., Solomons, Md.											
39683	Farmers Harvester (Low Grade)	Solomons	1.54	2.00	.13	.25	3.20	.....	10.86	9.00	30.28	30.25
	Peerless Fertilizer Co., Chestertow n, Md.											
39509	Acid Phosphate.....	Chestertown.....	.....	.....	.....	.....	.47	.....	17.07	16.00	25.70	24.00
39510	Club Mixture (Low Grade).....	Chestertown.....	1.09	.50	.....	.....	.50	1.00	8.78	8.00	22.09	16.40
39511	Raw Bone.....	Chestertown.....	4.86	4.50	.....	.....	*24.55	*23.00	.....	.....	53.61	49.80
39811	Special Potash Mixture (L. Gr.)	Chestertown.....	.84	.50	3.02	3.00	.70	.....	9.06	8.00	29.65	25.00
39513	Wheat & Clover (Low Grade)..	Chestertown.....	1.37	1.00	.....	.....	.70	2.00	9.15	8.00	24.97	20.80
	Piedmont-Mt. Airy Guano Co., Bal to., Md.											
39465	Levering's Ammoniated Bone..	Worton (W. M. S.).	1.21	1.00	3.24	3.00	1.60	.....	9.84	9.00	34.80	30.50
39688	Levering's Excelsior.....	Baltimore.....	1.01	1.00	1.04	1.00	1.65	.....	9.02	8.00	25.39	23.00
39689	Levering's Harvest Queen.....	Baltimore.....	1.23	1.00	2.48	2.00	1.97	.....	7.66	8.00	29.56	26.00

39689	Levering's Harvest Queen	Baltimore	1.23	1.00	2.48	2.00	1.97		7.66	8.00	29.00	26.00		
39789	Levering's I.X.L. Crop Grower.	Baltimore			3.08	3.00	.87		10.38	10.00	24.98	24.00		
39675	Levering's Standard Special	Mt. Airy	2.06	2.00	1.20	1.00	3.52	1.00	5.57	8.00	29.85	31.40		
39561	Peerless Phosphate	Baltimore	1.06	1.00	1.16	1.00	.80	2.00	8.03	8.00	24.33	23.80		
39676	Piedmont Acid Phosphate 16%	Mt. Airy					.67		16.26	16.00	24.52	24.00		
39790	Pied. Acidulated Phos. & Potash	Baltimore			2.04	2.00	.80		11.82	10.00	24.01	21.00		
39791	Piedmont Bone Meal	Baltimore	3.96	4.00			*24.36	*21.00			46.30	44.60		
39677	Piedmont Economy (L. Gr.)	Mt. Airy	.27	.25			.32		10.39	10.00	17.88	17.00		
39792	Piedmont Farmers Favorite	Baltimore	1.37	1.00	3.84	4.00	1.47		8.44	8.00	35.73	32.00		
39793	Pied. Farmers Pride 2-12-0	Baltimore	2.46	2.00			3.87		9.90	12.00	36.08	34.00		
39562	Pied. Golden Eagle Fertilizer	Baltimore	1.89	2.00	1.14	1.00	1.67		9.65	9.00	33.69	32.50		
39552	Pied. H. G. Amm'd Bone & Pot.	Baltimore	3.21	3.00	3.48	3.00	1.90		8.44	8.00	49.54	45.00		
39697	Piedmont ½-9-3 Fert. (L. Gr.)	Baltimore	.70	.50	3.30	3.00	.77		8.79	9.00	29.00	26.50		
39460	Piedmont 1-9-3	Rock Hall (W.M.S.)	1.11	1.00	2.90	3.00	2.37		7.83	9.00	30.28	30.50		
39753	Piedmont 1-12-2 Fertilizer	Baltimore	1.21	1.00	1.76	2.00	1.90		11.46	12.00	32.91	32.00		
39728	Piedmont Plow Brand	Baltimore	2.04	2.00	2.56	2.00	3.87		6.55	8.00	35.38	34.00		
39690	Pied. Spec. Crop Grower 1-10-0	Baltimore	1.02	1.00			1.55		10.41	10.00	24.40	23.00		
39461	Piedmont 2-12-2	Rock Hall (W.M.S.)	2.01	2.00	2.30	2.00	3.65		8.97	12.00	37.90	40.00		
39466	Piedmont 2-12-2	Worton (W.M.S.)	2.13	2.00	1.88	2.00	3.70		11.41	12.00	41.28	40.00		
39563	Piedmont Utility Fertilizer	Baltimore	2.15	2.00			.67		10.01	10.00	32.49	31.00		
	Pollock Fertilizer Co., Balto., Md.													
39572	Ammoniated Fertilizer "AAA"	Baltimore	3.02	3.00			1.10		10.38	10.00	40.17	39.00		
39573	Crop Invigorator	Baltimore	1.33	1.00	3.36	4.00	.75		8.72	8.00	34.10	32.00		
39712	H. G. Super Phosphate	Baltimore					1.35		16.19	16.00	24.56	24.00		
39691	Spec. Wheat & Corn Fertilizer	Baltimore	.96	1.00	1.92	2.00	1.32		8.18	8.00	26.24	26.00		
	Ramsburg Fertilizer Co., Frederick, Md.													
39631	Ammoniated Bone Phosphate	Frederick	1.11	1.00			2.32		11.02	11.00	26.34	24.50		
39632	Excelsior Plant Food	Frederick	2.01	2.00			2.60		10.81	10.00	33.34	31.00		
39450	Mixed to Order	Jefferson (C.S.T.)	2.42	2.00	2.62	2.00	.97		8.72	8.00	48.55	34.00		
39633	Queen (Low Grade)	Frederick	.52	.50			2.55		10.12	10.00	20.36	19.00		
39630	Super Phosphate	Frederick					1.35		17.46	16.00	26.46	24.00		
39634	Williams Wheat & Grass Fert.	Frederick	1.21	1.00			2.05		11.98	10.00	28.47	23.00		
	Rasin-Monumental Co., Balto., Md.													
39549	Rasin's Acid Phosphate 16%	Baltimore					.40		16.26	16.00	24.47	24.00		
39590	Rsn's Best Grain & Grass For.	Baltimore	1.93	2.00	3.76	4.00	1.27		11.11	10.00	43.90	43.00		
39799	Rasin's Capital Crop Compound.	Baltimore	1.79	1.00	3.46	3.00	1.15	1.00	10.36	9.00	40.70	30.90		
39635	Rasin's Empire Guano	Taneytown	1.84	2.00	1.86	1.00	2.27		9.08	8.00	34.83	31.00		
39591	Rasin's Empire Guano	Baltimore	1.84	2.00	2.24	2.00	1.30		8.81	8.00	35.18	34.00		

*Total Phosphoric Acid.

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							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	Rasin-Monumental Co., Balto., Md.											
39754	Rsn's National Crop Compound.	Baltimore.....	1.01	1.00	3.48	4.00	1.15	1.00	9.21	8.00	$32.80	$32.40
39804	Rsn's Phosphate & Potash 10-2.	Baltimore.....	.....	.....	2.12	2.00	1.95	.....	11.34	10.00	23.76	21.00
39636	Rsn's Phosphate & Potash 10-5.	Taneytown.....	.....	.....	4.88	5.00	3.55	.....	10.22	10.00	30.68	30.00
39463	Rasin's Pure Raw Bone ..	Mt. Airy (J.N.C.)..	4.71	4.50	.....	.....	*22.09	*20.60	.....	.....	50.93	48.36
39606	Rasin's Royal Fish, Bone & Pot.	Baltimore.....	1.93	2.00	3.12	3.00	2.40	1.00	8.28	8.00	38.18	37.40
39678	Rasin's Royal Manure (L. G.) ..	Mt. Airy.....	.75	.50	1.32	1.00	.95	1.00	9.03	8.00	23.89	19.40
39620	Seawall Special (Low Grade)...	Baltimore.....	.....	.....	.....	.....	.52	.....	11.13	10.00	16.80	15.00
39464	Rasin's Soluble Phosphate.....	Mt. Airy (J.N.C.)..	.....	.....	2.51	3.00	2.60	.....	13.79	12.00	28.74	27.00
39574	Rsn's Spec. Crop Preparation ..	Baltimore.....	2.02	2.00	.....	.....	1.40	1.00	10.68	10.00	32.74	31.40
39575	Rasin's Special Fish Mixture...	Baltimore.....	1.13	1.00	.....	.....	1.27	1.00	10.51	10.00	25.32	23.40
39698	Rsn's Spec. Fish & Bone Guano.	Baltimore.....	1.66	2.00	.....	.....	1.77	1.00	11.24	11.00	30.85	32.90
39637	Rasin's United Grain Grower...	Woodsboro.....	.75	1.00	2.42	2.00	2.15	.....	8.53	8.00	26.92	26.00
39713	Rasin's Wheat, Corn & Oats Mixture (L.Gr.)	Baltimore.....	.98	.50	2.80	2.00	.75	1.00	8.84	8.00	29.80	22.40
39576	William Penn Crop Grower.....	Baltimore.....	1.06	1.00	1.02	1.00	1.25	1.00	9.38	8.00	26.11	23.40
	Reindollar Co., Taneytown, Md.											
39638	Ammoniated Phosphate.....	Taneytown.....	2.08	2.00	.....	.....	1.27	.....	13.43	12.00	37.30	34.00
	F. S. Royster Guano Co., Balto., Md.											
39655	Acid Phosphate 14%.....	Baltimore.....	.....	.....	.....	.....	1.82	.....	14.69	14.00	22.40	21.00
39577	Acid Phosphate 16%.....	Baltimore.....	.....	.....	.....	.....	1.40	.....	16.02	16.00	24.31	24.00
39781	Alrite Ammoniated Phosphate..	Baltimore.....	2.10	2.00	.....	.....	1.62	.....	12.31	12.00	35.92	34.00
39714	Banner Potash Mixture.....	Baltimore.....	.....	.....	3.20	3.00	1.00	.....	11.75	10.00	27.43	24.00

39514	Cloverdale Potash Mixture	Bohemia Wharf	.....	.....	2.04	2.00	.70	.....	11.41	10.00	23.38	21.00
39639	Cuckoo Crop Grower	Rockville	1.04	1.00	1.04	1.00	.92	.....	8.32	8.00	24.29	23.00
39640	Dreadnought Guano	Rockville	1.83	2.00	1.80	2.00	1.27	.....	8.53	8.00	33.35	34.00
39621	Fifty-Fifty Bone & Phosphate	Baltimore	1.67	1.50	.....	.....	*19.45	*19.00	.....	.....	25.03	23.40
39578	Grain & Grass Amm'd Phos. (L.G.)	Baltimore	1.06	1.00	.....	.....	1.97	.....	8.07	8.00	21.38	20.00
39801	Half & Half Wh't Guano (L. G.)	Baltimore	.97	.50	.62	.50	1.85	.....	8.54	8.00	23.17	17.50
39622	Harmony Potash Mixture	Baltimore	.....	.....	2.03	2.00	1.27	.....	12.52	12.00	25.12	24.00
39819	Madewell Potash Mixture (L. G.)	Greensboro	.....	.....	2.80	3.00	1.15	.....	9.27	8.00	22.54	21.00
39699	Old Glory Potash Mix. (L. Gr.)	Baltimore	.....	.....	1.14	1.00	1.05	.....	10.11	10.00	18.80	18.00
39641	Penguin Amm'd Phosphate	Rockville	2.03	2.00	.....	.....	1.85	.....	9.82	10.00	31.71	31.00
39515	Phosphate & Potash Mixture	Bohemia Wharf	.....	.....	3.04	3.00	1.15	.....	13.02	12.00	28.88	27.00
39554	Pure Raw Bone Meal	Baltimore	5.02	4.50	.....	.....	*24.26	*21.50	.....	.....	54.72	48.90
39715	Rational Guano	Baltimore	1.01	1.00	4.02	4.00	2.05	.....	7.16	8.00	31.70	32.00
39516	Royal Blue Amm'd Phosphate	Bohemia Wharf	1.16	1.00	.....	.....	1.90	.....	9.96	10.00	24.98	23.00
39657	Seeding Down Spec. Guano	Baltimore	1.06	1.00	3.02	3.00	1.75	.....	10.25	9.00	33.62	30.50
39555	Superior Potash Mixture	Baltimore	.....	.....	5.05	5.00	2.30	.....	12.43	12.00	34.26	33.00
39517	Wheat, Oats & Barley Guano	Bohemia Wharf	1.02	1.00	1.86	2.00	1.37	.....	8.10	8.00	26.44	26.00
	Scott Fertilizer Co., Elkton, Md.											
39758	Ammoniated Base	Elkton	2.17	2.00	.....	.....	1.22	.....	12.02	12.00	35.88	34.00
39759	Crop Grower (Low Grade)	Elkton	2.06	2.00	.....	.....	.77	.....	7.52	8.00	28.07	28.00
39518	Pennsylvania Tomato Grower	Elkton	1.06	1.00	2.08	2.00	.65	.....	8.21	8.00	27.30	26.00
39519	Pure Ground Raw Bone	Elkton	5.31	4.50	.....	.....	*23.43	*21.00	.....	.....	56.54	48.60
39520	Soluble Phosphate & Potash 12-2	Elkton	.....	.....	2.08	2.00	.62	.....	12.29	12.00	24.80	24.00
39521	Special Grain Grower	Elkton	1.13	1.00	.....	.....	.77	.....	10.94	10.00	25.76	23.00
39522	Sure Growth Super Phosphate	Elkton	1.96	2.00	2.12	2.00	.65	.....	9.89	8.00	37.14	34.00
39523	Tip Top Soluble Phosphate	Elkton	.....	.....	.....	.....	.75	.....	14.62	16.00	22.08	24.00
39524	Victory Brand	Elkton	1.95	2.00	2.68	3.00	.85	.....	8.35	8.00	36.51	37.00
39525	Wheat & Grass Grower (L. G.)	Elkton	.96	.50	1.32	1.00	1.00	.....	10.54	10.00	27.85	22.00
	Standard Guano Co., Balto., Md.											
39700	Acid Phosphate Extra H. G.	Baltimore	.....	.....	.....	.....	.62	.50	17.17	16.00	25.88	24.10
39642	Dissolved Bone	Walkersville	1.40	2.00	.....	.....	2.25	.....	12.99	10.00	31.59	31.00
39643	Golden Harvest	Walkersville	1.31	1.00	.....	.....	1.52	.....	10.59	11.00	26.98	24.50
39739	1-10-0 Fertilizer	Baltimore	1.16	1.00	.....	.....	1.62	.....	13.04	10.00	29.49	23.00
	W. H. Streett & Co., Fallston, Md.											
39820	Ammoniated Dissolved Bone	Fallston	1.69	1.50	1.22	1.00	.92	.50	9.19	9.00	31.34	28.70
	Superior Guano Co., Balto., Md.											
39794	Ammoniated Dissolved Bone	Baltimore	1.40	1.25	.....	.....	2.62	.....	9.62	10.00	26.68	25.00

*Total Phosphoric Acid.

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							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	Superior Guano Co., Balto., Md.											
39579	Ammoniated Phosphate & Pot.	Baltimore	1.08	1.00	3.42	2.00	.75	.....	9.83	8.00	$33.95	$26.00
39716	Big Crop Grower	Baltimore	1.45	2.00	1.80	2.00	2.52	.....	8.41	8.00	30.63	34.00
39782	Buyers Mixture 8-5	Baltimore	.....	.....	4.56	5.00	1.05	.....	9.95	8.00	28.82	27.00
39740	Buyers Mixture	Baltimore	.84	1.00	1.34	2.00	2.85	.....	9.77	10.00	26.54	29.00
39741	Buyers Mixture	Baltimore	.77	1.00	2.26	3.00	2.90	.....	12.66	12.00	33.09	35.00
39717	Buyers Mixture	Baltimore	.....	.....	5.06	5.00	3.67	.....	7.39	10.00	27.00	30.00
39580	Caroline Special	Baltimore	1.13	1.00	3.24	3.00	.97	.....	10.09	9.00	34.29	30.50
39742	Corn & Tomato Fert. (L. Gr.)	Baltimore	.61	.50	1.06	1.00	1.20	.....	7.28	8.00	19.46	19.00
39693	Crop Producer	Baltimore	1.11	1.00	1.04	1.00	1.80	.....	7.60	8.00	24.12	23.00
39783	Dissolved Bone	Baltimore	2.02	2.00	.....	.....	2.65	.....	10.83	10.00	33.47	31.00
39581	Fruit Special	Baltimore	1.91	2.00	5.44	5.00	.85	.....	9.45	8.00	46.12	43.00
39659	Half & Half (Low Grade)	Baltimore	.....	.....	1.96	1.25	4.07	.....	6.69	8.00	16.73	15.75
39582	Massey's Spec. Wheat Mixture	Baltimore	1.33	1.00	2.08	2.00	1.80	.....	10.79	11.00	33.79	30.50
39805	Phosphate & Potash	Baltimore	.....	.....	2.24	2.00	3.97	.....	8.24	10.00	19.87	21.00
39743	Price's Mixture (Low Grade)	Baltimore	.51	.50	.....	.....	3.52	.....	9.77	10.00	20.15	19.00
39795	Special Crab Mixture	Baltimore	1.26	1.25	.....	.....	1.82	.....	14.06	12.00	31.90	28.00
39718	Special Mixture	Baltimore	.85	1.00	.....	.....	2.77	.....	11.23	10.00	24.76	23.00
39623	Special Wheat & Grass	Baltimore	.....	.....	2.32	2.00	3.07	.....	9.27	10.00	21.48	21.00
	Swift & Co., Balto., Md.											
39756	Acid Phos. Garden City	Baltimore	.....	.....	.....	.....	.80	.....	13.35	14.00	20.19	21.00
39564	Acid Phosphate 16%	Baltimore	.....	.....	.....	.....	1.27	.....	16.39	16.00	24.84	24.00
39729	Ammoniated Phosphate 1-10-0	Baltimore	1.09	1.00	.....	.....	.82	.....	10.43	10.00	24.70	23.00

39729	Ammoniated Phosphate 1-10-0..	Baltimore.....	1.09	1.00	.....	.....						
39607	Bone Meal & Phosphate.....	Baltimore.....	1.28	1.00	.....	.....	5.60	7.00	14.87	13.00	34.79	30.30
39694	Diamond "C" Fert. 1-8-0 (L.G.)	Baltimore.....	1.01	1.00	.....	.....	.67	.....	9.60	8.00	22.75	20.00
39556	Excelsior 7-6-5.....	Baltimore.....	6.74	7.00	4.48	5.00	.92	.....	6.89	6.00	78.07	80.00
39730	Farmers Home.....	Baltimore.....	.....	.....	4.04	4.00	2.00	.....	10.15	10.00	27.75	27.00
39660	Grain Grower.....	Baltimore.....	.....	.....	2.48	2.00	2.95	.....	12.10	12.00	26.18	24.00
39806	Grain Fertilizer No. 5, 1-8-4....	Baltimore.....	1.31	1.00	2.48	4.00	1.15	.....	9.37	8.00	32.44	32.00
39661	Grain Fertilizer.....	Baltimore.....	1.09	1.00	1.72	2.00	.77	.....	9.46	8.00	28.38	26.00
39760	H. G. Grain Grower No. 2.....	Denton.....	2.03	2.00	4.22	4.00	.75	.....	10.73	10.00	45.30	43.00
39744	H. G. Grain Grower No. 3.....	Baltimore.....	1.51	1.50	1.84	1.50	.77	.....	12.56	12.00	36.75	34.50
39719	Monarch Phosphate & Potash...	Baltimore.....	.....	.....	2.74	3.00	1.30	.....	9.73	12.00	23.08	27.00
39784	Phosphate & Potash 12-5.....	Baltimore.....	.....	.....	4.04	5.00	1.52	.....	12.09	12.00	30.56	33.00
39592	Raw Bone Meal.....	Baltimore.....	5.02	4.50	.....	.....	*23.08	*23.00	.....	.....	54.01	49.80
39583	Red Steer 2-8-2.....	Baltimore.....	2.13	2.00	2.06	2.00	1.30	.....	8.44	8.00	36.40	34.00
39624	Reliable Grain Fertilizer.....	Baltimore.....	1.19	1.00	1.16	1.00	.80	.....	9.32	8.00	27.30	23.00
39807	Spec. H. G. Phos. & Potash....	Baltimore.....	.....	.....	5.06	5.00	2.87	.....	12.45	12.00	34.33	33.00
39662	Special Phosphate & Potash....	Baltimore.....	.....	.....	2.10	2.00	1.80	.....	11.16	10.00	23.40	21.00
39731	Standard Potato Fertilizer.....	Baltimore.....	2.02	2.00	3.12	3.00	1.17	.....	8.01	8.00	38.01	37.00
39720	Wheat and Corn Fertilizer.....	Baltimore.....	1.52	2.00	2.48	2.00	1.15	.....	12.56	12.00	38.90	40.00
39594	Wheat Grower Phos. & Potash..	Baltimore.....	.....	.....	1.92	2.00	2.02	.....	12.07	12.00	24.27	24.00
	H. S. Taveau & Co., Balto., Md.											
39732	Bone Mixture.....	Baltimore.....	1.11	1.00	.84	1 00	1.45	.....	9.36	9.00	26.02	24.50
39802	Special Wheat Mixture.....	Baltimore.....	1.02	1.00	.....	.....	1.15	.....	11.06	10.00	25.21	23.00
	Thomas & Co., Frederick, Md.											
39608	Acid Phosphate 16%.....	Baltimore.....	.....	.....	.....	.....	.70	.....	16.12	16.00	24.32	24.00
39644	Blood & Bone.....	Frederick.....	2.17	2.00	.....	.....	1.02	.....	11.84	10.00	35.53	31.00
39645	Corn & Potato Fertilizer.....	Barnesville.....	1.31	1.25	.....	.....	1.45	.....	7.94	10.00	22.97	25.00
39609	Crop Producer (Low Grade)....	Baltimore.....	1.04	1.00	.....	.....	1.02	.....	8.03	8.00	20.78	20.00
39610	Harvest Queen.....	Baltimore.....	1.37	1.25	.....	.....	.75	.....	10.68	10.00	27.28	25.00
39611	Plant Food Phosphate (L. Gr.).	Baltimore.....	1.02	1.00	.....	.....	1.00	.....	9.30	9.00	22.51	21.50
39646	Special Mixture (Low Grade) ..	Frederick.....	.51	.50	.....	.....	.65	.....	8.96	8.00	17.78	16.00
	W. B. Tilghman Co., Salisbury, Md.											
39526	Acid Phosphate High Grade....	Salisbury.....	.....	.....	.....	.....	.87	.....	18.05	16.00	27.25	24.00
39527	Bone Tankage Mixture.....	Salisbury.....	2.10	2.00	2.46	2.00	1.07	.....	12.41	12.00	43.23	40.00
39528	Fish-Bone Phosphate Mixture...	Salisbury.....	1.09	1.00	.....	.....	1.20	.....	11.36	11.00	26.24	24.50
39529	Fish-Bone & Potash Mixture....	Salisbury.....	1.08	1.00	2.04	2.00	1.45	.....	10.58	10.00	31.21	29.00
39530	Mixture "B" Revised 1916.....	Salisbury.....	4.18	4.00	.....	.....	1.40	.....	9.92	9.00	48.88	45.50
39531	Potash "B" Mixture.....	Salisbury.....	3.75	4.00	4.20	3.00	1.22	.....	9.38	8.00	57.16	53.00

*Total Phosphoric Acid.

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Senders initials when not Sampled by the College Agent.)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.				Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed.
							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	W. B. Tilghman Co., Salisbury, Md.											
39763	Potash & Phosphate	Salisbury	.....	.....	4.04	4.00	.62	.....	13.82	14.00	$32.97	$33.00
39532	Special Mixture (Low Grade)	Salisbury	.49	.33	.....	.....	1.20	.....	13.21	13.00	24.22	22.14
39533	Special 3-8-5	Salisbury	3.52	3.00	4.56	5.00	1.17	.....	9.37	8 00	56.37	51.00
39534	Standard Fish Mixture	Salisbury	1.91	2.00	.....	.....	1.15	.....	10.81	10.00	31.96	31.00
	J. Tyson & Son, Frederick, Md.											
39595	Acid Phosphate	Baltimore	.....	.....	.....	.....	.22	.....	16.50	16.00	24.79	24.00
39647	Ammoniated Super Phosphate	Woodsboro	1.08	1.00	.....	.....	1.62	.....	10.84	10.00	25.55	23.00
39648	Fish & Bone	Woodsboro	1.60	1.50	.....	.....	1.30	.....	11.23	10.00	30.17	27.00
39649	Half & Half Super Phos. (L.G.)	Woodsboro	1.02	1.00	.....	.....	1.35	.....	9.82	8.00	23.43	20.00
39650	Special Mixture (Low Grade)	Frederick	.58	.50	.....	.....	1.10	.....	11.33	9.00	22.08	17.50
39651	XX Fertilizer	Woodsboro	2.08	2.00	.....	.....	1.25	.....	9.94	9.00	32.05	29.50
	E. S. Valliant & Son, Church Hill, Md.											
39701	Acid Phosphate 14%	Baltimore	.....	.....	.....	.....	.22	.....	15.27	14.00	22.95	21.00
39584	Big Three	Baltimore	1.02	1.00	2.64	3.00	.82	.....	9.41	9.00	30.53	30.50
39702	Crop Grower	Baltimore	1.01	1.00	1.04	1.00	.90	.50	9.17	8.00	25.32	23.20
39613	Grain Grower (Low Grade)	Baltimore	.56	.50	.26	.25	.97	.....	11.40	10.00	22.75	19.75
39557	Grain Grower (Low Grade)	Baltimore	.70	.50	.40	.25	.55	.....	10.46	10.00	22.71	19.75
39535	Grain Grower (Low Grade)	Easton	.67	.50	.32	.25	.82	.....	10.56	10.00	22.49	19.75
39614	Ideal	Baltimore	1.16	1.00	2.02	2.00	.92	.50	9.81	9.00	30.43	27.70
39536	Liberty	Berlin	2.82	3.00	2.24	2.00	.95	.....	10.76	10.00	45.80	45.00
39764	½-10-½ (Low Grade)	Centreville	.68	.50	.76	.50	2.20	.....	9.72	10.00	23.18	20.50

39616	¼-10-2 Fertilizer (Low Grade)...	Baltimore.....	.34	.25	1.68	2.00	.80	.....	10.12	10.00	23.26	23.00
39733	1-10-1 Fertilizer.....	Baltimore.....	1.09	1.00	1.48	1.00	1.07	.....	10.05	10.00	28.67	26.00
39745	1-10-3 Fertilizer.....	Baltimore.....	1.01	1.00	2.72	3.00	1.77	.....	10 85	10.00	33.23	32.00
39808	1-8-2 Fertiliz r	Baltimore.....	1.02	1.00	2.12	2.00	.85	.....	9.42	8.00	28 99	26.00
39558	Oriole (Low Grade)	Baltimore.....	.84	.50	1.90	2.00	.62	.....	10.02	10.00	27.70	25.00
39617	Standard.....	Baltimore.....	1.16	1.00	3.72	4.00	.80	.....	9.54	9.00	35.07	33.50
39703	10-2 Fertilizer.....	Baltimore.....	.....	.....	2.12	2.00	.52	.....	10.14	10.00	21.67	21.00
39746	10-3 Fertilizer.....	Baltimore.....	.....	.....	2.92	3.00	1.07	.....	10.28	10.00	24.39	24.00
39618	12-5 Fertilizer.....	Baltimore.....	.....	.....	5.20	5.00	1.05	.....	12.75	12.00	34.94	33.00
	W. H. Valliant & Bro., Bellevue, Md.											
39766	Crab Phosphate (Low Grade)...	Bellevue.....	2.37	2.00	.....	.....	.50	.....	1.89	2.00	22.00	19.00
39767	Fish Mixture (Low Grade).....	Bellevue.....	2.01	2.00	.....	.....	1.47	.....	8.57	5.00	29.53	23.50
39768	Grain Grower.....	Bellevue.....	1.66	1.00	.....	.....	1.67	.....	12.13	10.00	32.15	23.00
39770	Wheat Special (Low Grade)....	Bellevue.....	1.43	1.00	.....	.....	1.25	.....	10.13	8.00	27.14	20.00
	Virginia-Carolina Chemical Co., Richmond, Va.											
39565	Fish, Bone & Potash.....	Baltimore.....	2 06	2.00	3.28	3.00	2.35	1.00	8.04	8.00	39.32	37.40
39585	1-9-3 Fertilizer.....	Baltimore.....	1.08	1.00	2.84	3.00	1.40	1.00	10.17	9.00	32.98	30.90
39803	Special Fish Preparation.....	Baltimore.....	1.47	1.00	.....	.....	1.22	1.00	11.50	10.00	29.50	23.40
39619	Special Phosphate & Potash....	Baltimore.....	.....	.....	5.04	5.00	2.35	.....	10.15	10.00	30.82	30.00
39747	Standard Crop Grower.....	Baltimore.....	2.53	2 00	2.66	2.00	.67	1.00	10.39	8.00	44.08	34.40
39704	Standard Grain Grower.....	Baltimore.....	1.13	1.00	1.76	2.00	1.55	1.00	10.02	8.00	29.97	26.40
	S. L. Webster & Son, Cambridge, Md.											
39537	Old Dorset.....	Cambridge.....	.77	1.00	1.80	2.00	1.22	.....	9.36	8.00	26.09	26.00
39771	Our Bone & Potash.....	Cambridge.....	.....	.....	4.08	5.00	.62	.....	12.93	12.00	31.76	33.00
39813	Our No. 2	Cambridge.....	1.86	2.00	2.02	2.00	1.77	.....	10.34	8.00	37.16	34.00
39539	Our Special Make.....	Cambridge.....	.80	1.00	.....	.....	2.10	.....	11.53	10.00	24.54	23.00
	Westminster Fertilizer Co., Westminster, Md.											
39679	Governor.....	Westminster.....	.87	1.50	.....	.....	.80	.....	11.25	11.00	24.20	28.50
39680	Leader.....	Westminster.....	.82	1.00	1.12	1.00	.87	.....	8.89	9.00	23.61	24.50
39681	Super "A" (Low Grade).....	Westminster.....	.87	1.00	.....	.....	1.00	.....	8.85	9.00	20.64	21.50
	Rob't A. Wooldridge Co., Baltimore, Md.											
39796	American Potash Mixture.....	Baltimore.....	.....	.....	1.78	2.00	1.00	.....	10.03	10.00	20.59	21.00
39748	Acid Phosphate Florida.....	Baltimore..... ...	.....	.....	.....	.....	.67	.....	14.12	14.00	21.31	21.00
39543	Basic Lime Phosphate (L. Gr.).	Friendsville.....	.....	.....	.....	.....	1.25	1.00	14.21	13.00	21.57	19.70
39663	Dissolved S. C. Phosphate (L.G.)	Baltimore.....	.....	.....	.....	.....	.75	.....	12.02	12.00	18.18	18.00
39566	Chieftain Phosphate	Baltimore.....	2.08	2.00	2.03	2.00	1.02	.....	8.30	8.00	35.59	34.00

No.	Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling (and Senders initials when not Sampled by the College Agent.)	NITROGEN Calculated as AMMONIA.		POTASH. K_2O.		PHOSPHORIC ACID.				Comparative Value Per Ton Found.	Comparative Value Per Ton Guaranteed.
							Insoluble.		Available.			
			Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.		
	Robt. A. Wooldridge Co., Baltimore, Md.											
39810	Fine Ground Bone	Towson	3.40	3.00	.....	.....	*26.40	*22.88	.....	.....	$43.04	$37.73
39749	Ideal Grain & Grass Grower	Baltimore	.....	.....	4.20	4.00	1.02	.....	10.49	10.00	28.54	27.00
39750	Old Sledge Phosphate	Baltimore	.....	.....	5.05	5.00	1.20	.....	11.77	12.00	33.05	33.00
39772	No. 2 Phosphate & Potash	Cambridge	.....	.....	5.03	5.00	.90	.....	8.44	8.00	27.93	27.00
39734	Special Wheat & Grass Grower	Baltimore	1.33	1.50	.....	.....	1.67	.....	9.81	10.00	26.03	27.00
39735	Triumph Phosphate	Baltimore	1.57	1.50	3.58	4.00	1.15	.....	8.29	8.00	36.20	36.00
39773	Wheat Fertilizer	Cambridge	1.02	1.00	3.24	3.00	1.32	.....	9.55	9.00	32.74	30.50
	Worcester Fertilizer Co., Snow Hill, Md.											
39774	Acid Phosphate 16%	Snow Hill	.....	.....	.....	.....	.52	.....	16.06	16.00	24.19	24.00
39816	Fish, Bone & Potash	Snow Hill	2.01	2.00	2.12	2.00	1.35	.....	9.14	8.00	36.69	34.00
39541	1-10-1	Snow Hill	1.11	1.00	1.40	1.00	.47	.....	9.70	10.00	27.82	26.00
39775	12 & 3	Snow Hill	.....	.....	3.03	3.00	1.35	.....	12.52	12.00	28.14	27.00
39776	Wheat & Grass Mixture	Snow Hill	1.33	1.00	2.14	2.00	1.35	.....	10.48	10.00	33.32	29.00
39777	Wheat & Grass Special	Snow Hill	1.21	1.00	2.48	3.00	1.60	.....	11.88	12.00	35.58	35.00

*Total Phosphoric Acid.

TABLE II

REGISTRATIONS OF FERTILIZERS FOR 1919

Second Supplement. For Registrations After August 9. See Nos. 83 and 85.

For Key See Page 40.

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
American Agr'l Chem. Co., N. Y.			
Nassau Soluble Phosphate	.....	14	.....
" H. G. Superphosphate	.....	16	.....
" Grass and Grain Fertilizer	.....	10 R	2 SM
" Royal Mixture	.....	8 "	5 "
" Buckwheat (Low Grade)	1 TLMb	8 RB	0
" Old Hickory, 1916	1 "	10 "	0
" Common Sense Fert., 1916	2 ALMb	10 "	0
" Wht. and Gra. Grower, 1916	1 TMLb	8 "	1 SM
" Special Mixture, 1916	1 "	10 "	1 "
" General Crop Fertilizer	1 "	8 "	2 "
" Standard Crop Grower	2 ATMLb	8 "	2 "
American Fertilizing Co., Balto., Md.			
Best Grain and Grass Formula	2 TBFMDb	10 RB	4 NKT
Premium Grain and Clover Mixture	2 "	12 "	2 "
Formula for Wheat and Corn	.....	10 "	5 "
Eagle Crop Grower	2 "	8 "	2 "
Champion Grain Grower	1 "	8 "	4 "
Prize Alkaline Phosphate	.....	12 "	3 "
Armour Fertilizer Works, Balto., Md.			
Cereal Special No. 2	2 TAN	10 RT	4 M
Wheat and Clover	.....	10 R	5 "
Tuscarora's Cereal Spec. No. 3	2 "	12 RT	2 "
Fruit and Root Crop Special	2 "	8 "	5 "
Royal Ammoniated	1 Tb	8 RTb	4 "
Associated Chem. Co., Hagerstown, Md.			
Ground Steamed Bone	2½	25.00 Tot.	.....
Beckley Fertilizer Co., Half Way, Md.			
Grain Special	.....	10 R	3 N
Potash Mixture	2 ANt	8 "	2 "
N. T. Bennett, New Windsor, Md.			
Butcher House Phosphate	1 Tt	9 R	2 AB
Bennetts, 1-11	1 "	11 "	0
Farm. and Planters Co., Salisbury, Md.			
Crop Grower	1 Fb	10 Rb	2 K
Fish Mixture	2 "	8 "	2 KM
Wheat Mixture	.....	10 "	5 "
Hubbard Fertilizer Co., Balto., Md.			
Alakline, 12-2	.....	12 R	2 K
Alakline, 12-3	.....	12 "	3 "
2-10-4 Fertilizer	2 TAN	10 "	4 "
Half Eight One Fert. (L. Gr.)	½ T	8 "	1 KD
Huston, Darbee & Co., Inc., Seaford, Del.			
Huston's Special	1 Tb	10 R	2 MD
Wheat Special	.....	12 "	3 M
Double Potash	.....	12 "	5 M
Massey & Kilbourne, Chestertown, Md.			
Crop Phosphate (Low Grade)	1 NATb	9 Rb	0
Crop Producer	1 Tb	9 "	3 B
12-3 Phosphate	.....	12 R	3 "
10-5 Phosphate	.....	10 "	5 "
Md. Milling & Supply Co., Sykesville.			
14% Acid Phosphate	.....	14	.....
High Grade Acid Phosphate	.....	16	.....
Phosphate and Potash	.....	10 R	2 D
Warfield's Wht. and Gra. Mixture	1 T	8 "	1 "
Ammoniated Super Phosphate	1¼ T	10 "	0
Fish Bone and Potash	1 TF	9 "	2 "
Gambrill's Excelsior Phosphate	2 T	10 "	2 "
G. Ober & Sons Co., Balto., Md.			
Sea Bird Guano	2 TAF	10 RFT	4 N
Red Seal Wheat Guano	2 "	12 "	2 "

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
G. Ober & Sons Co., Balto., Md.			
Golden Glow Mixture (L. Gr.)	½ TAF	8 RFT	2 N
Standard Potash Compound	.....	12 R	4 "
Peerless Potash Compound	.....	12 "	2 "
10% Super Phosphate and Potash	.....	10 "	2 "
Big Four Potash Compound	.....	10 "	4 "
Vim Potash Compound	.....	12 "	5 "
Patapsco Guano Co., Balto., Md.			
Golden Sheaves	2ALMTb	12 RB	2 SM
Special Alkaline Phosphate	.....	12 R	2 "
Rasin Monumental Co., Balto., Md.			
Best Grain and Grass Formula	2 TBFMDb	10 RB	4 NKT
Capital Grain and Clover Compound	2 "	12 "	2 "
Empire Guano	2 "	8 "	2 "
Capital Crop Compound	1 "	9 "	3 "
Soluble Alkaline Phosphate	.....	12 R	3 "
Special Phosphate and Potash	.....	10 "	5 "
Special Potash Mixture	.....	8 "	5 "
Swift & Co., Balto., Md.			
3-8-2 Brand	3 NAT	8 "	2 NCk
Grain Fertilizer No. 2	1 "	8 "	3 "
Special Formula	1 "	12 "	2 "
Alkaline Mixture No. 2	.....	14 "	2 "
Spec. Wht. Formula No. 3 (L. Gr.)	½ "	8 "	1 "
Half Ten Naught (Low Grade)	½ "	10 "	0
No. 4 Grain Grower	1½ "	12 "	0
Special Wheat Fertilizer	1 "	11 "	4 "
Monarch Phosphate and Potash	.....	12 "	3 "
Grain Fertilizer No. 5	1 "	8 "	4 "
Ammoniated Phosphate and Potash	1 "	10 "	1 "
Early Trucker	5 "	7 "	5 "
Grain Fertilizer No. 3	1 "	9 "	2 "
Wm. B. Tilghman Co., Salisbury, Md.			
Bone Tankage Mixture	2 AFT	12 RFT	2 K
Grain Phosphate	1 Ft	10 RF	5 MK
Grain Phosphate	.....	14 R	4 D
J. E. Tygert Co., Phila., Pa.			
Electro Phosphate, 1919	.....	10 R	4 M
J. Tyson & Son, Frederick, Md.			
Fish and Bone	1½ FT	10 RFT	0
Special Mixture (Low Grade)	½ t	9 RT	0
Acid Phosphate	.....	16	.....
Va.-Carolina Chem. Co., Richmond, Va.			
Best Grain and Grass Formula	2 TBFMDb	10 RB	4 NKT
Giant Grain and Clover Mixture	2 "	12 "	2 "
One Nine Three	1 "	9 "	3 "
Soluble Alkaline Compound	.....	12 R	2 "

TABLE III

REGISTRATIONS FOR 1920. CORRECT MARCH 1.

(The First Supplement Will Be Printed in the August Bulletin.)

For Key See Page 40.

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
Alphano Humus Co., New York, N. Y.			
Prepared Alphano Humus (L. Gr.)	1¼ H	½ H	½ H
Amer. Agr'l Chem. Co., New York, N. Y.			
14% Acid Phosphate	0	14	0
16% Acid Phosphate	0	16	0
Basic Lime Phosphate (L. Gr.)	0	13	0
Dissolved Phosphate and Potash	0	10 R	2 KD
Superior Phosphate and Potash	0	12 "	3 "
Ammoniated Superphos. (L. Gr.)	1 TFb	8 RB	0
Ammoniated Fertilizer "A"	1 "	10 "	0
Ammoniated Fertilizer "AA"	2 TFANb	10 "	0
Ammoniated Fertilizer "AAA"	3 "	10 "	0
5-8-0 Fertilizer	5 "	8 "	0
10-5-0 Fertilizer	10 "	5 "	0
Fish Fertilizer	2 FANb	10 "	0
Fish Guano	1 Fb	8 "	1 "
Matchless Potash Manure	2 TFANb	8 "	2 "
Crescent Complete Manure	2 "	8 "	3 "
5-7-3 Fertilizer	5 "	7 "	3 "
5-7-5 Fertilizer	5 "	7 "	5 "
7-6-5 Fertilizer	7 "	6 "	5 "
Fine Ground Bone	3	22.88*	0
Pure Bone Meal	4½	21.50*	0
Dissolved Animal Bone	2½	12	0
Special Bone Mixture	1½ B	12 RB	7 MD
A. A. C. Co. (Canton), Balto., Md.			
Eagle Phosphate (Low Grade)	1 FTb	7 "	1 KD
Harrow Brand Crop Grower	1 "	8 "	1 "
Baker's Spec. Wht., Corn and Grass	1 "	9 "	2 "
Baker's Standard Guano	2 TFANb	8 "	3 "
CCC Special Compound	3 "	8 "	4 "
A. A. C. Co. (Detrick), Balto., Md.			
Special Ammoniated Compound	1 TFb	8 "	1 "
Imperial Compound	1 "	8 "	2 "
Corn and Oats Fertilizer	1 "	9 "	2 "
Royal Crop Grower	2 TFANb	8 "	2 "
Kangaroo Komplete Kompound	2 "	8 "	3 "
Gold Basis	7 "	6 "	5 "
A. A. C. Co. (Lazaretto), Balto., Md.			
Ammoniated Phosphate, 1916	1 TFb	8 "	1 "
Farmers Choice Brand	1 "	8 "	2 "
Tomato Compound	1 "	8 "	4 "
Crop Grower	2 TFANb	8 "	2 "
Farmers Reliable	2 "	10 "	2 "
Spec. Tobacco and Potato Fertilizer	3 "	8 "	4 "
A. A. C. Co. (Susquehanna), Balto., Md.			
H. G. Superphosphate	0	16	0
Arrow Brand (Low Grade)	1 TFb	8 RB	0
Crop Grower (Low Grade)	1 "	7 "	1 KDN
XXV Phosphate	1 "	8 "	1 "
Ammoniated Phos. Revised	2 TFANb	8 "	2 "
A. A. C. Co. (Slingluff), Balto., Md.			
10% Tobacco Plant Bed Fert	10 "	5 "	2 "
A. A. C. Co. (Zell), Balto., Md.			
16% Acid Phosphate	0	16	0
Little Treasure (Low Grade)	1 TFb	7 "	1 "
Economizer Phosphate	1 "	8 "	2 "
Hustler Phosphate	1 "	9 "	3 "
Special Compound	3 TFANb	8 "	4 "
Truck Grower	5 "	7 "	5 "
A. A. C. Co. (Bowker Fert. Co.), Boston.			
16% Acid Phosphate	0	16	0

FIRM AND BRANDS	PER CENT AND SOURCES OF					
	Ammonia (or Nitrogen)		Phosphoric Acid Available		Potash Soluble	
A. A. C. Co. (Bowker Fert. Co.), Boston.						
Superphosphate with Potash	0		10	R	2	KDN
Superphosphate with Ammo. 1%	1	TFb	10	RB	0	
Superphosphate with Ammo. 2%	2	"	10	"	0	
Staple Phosphate	1	"	8	"	1	"
Sure Crop Phos. Revised	1	"	8	"	2	"
A. A. C. Co. (Jos. Cope & Co.), Balto.						
H. G. Superphosphate	0		16		0	
Fish Phosphate (Low Grade)	1	"	8	"	0	
Bone Phosphate	1	"	9	"	3	"
A. A. C. Co. (W. S. Farmer & Co.), Balto.						
H. G. Superphosphate	0		16		0	
All Crop Mixture No. 1	1	"	10	"	0	
All Crop Mixture No. 2	2	TFANb	10	"	0	
All Crop Mixture No. 3	3	"	10	"	0	
General Crop Grower (Low Grade)	1	TFb	7	"	1	"
Clyde Brand, 1916	1	"	8	"	1	"
Harvest Queen	1	"	9	"	3	"
Potato Guano	1	"	8	"	4	"
Fish Mixture	2	FTANb	8	"	2	"
Anne Arundel Trucker	5	"	8	"	2	"
Tobacco Bed Guano	10	"	5	"	2	"
7% Guano	7	"	6	"	3	"
A. A. C. Co. (Pollock Fert. Co.), Balto.						
H. G. Superphosphate	0		16		0	
Our Brand Guano (Low Grade)	1	TFb	8	"	0	
Ammoniated Fertilizer "AA"	2	TFANb	10	"	0	
Ammoniated Fertilizer "AAA"	3	"	10	"	0	
Corn and Oats Special (Low Grade)	1	TFb	7	"	1	"
Corn, Wheat and Tomato Guano	1	"	8	"	1	"
Spec. Corn and Wheat Fert	1	"	8	"	2	"
Spec. Potato and Tobacco Fert	2	TFANb	8	"	4	"
A.A.C.Co.(M.E.Wheeler & Co.),Rutland,Vt.						
H. G. Acid Phosphate	0		16		0	
Wheat and Clover Fertilizer	0		10	R	2	"
Banner Wheat Grower	1	TFb	10	RB	0	
Spec. Tomato Fert. 1920 (L. Gr.)	1	FTb	7	"	1	"
Royal Wheat Grower	1	"	8	"	2	"
Corn Fertilizer	2	TFANb	8	"	2	"
Potato Manure 1920	2	"	8	"	3	"
Complete Manure	5	"	7	"	5	"
H. G. Truck Fertilizer	7	"	6	"	5	"
American Fertilizing Co., Balto., Md.						
Best Truck and Vegetable Formula	4	TNCAt	10	"	6	NMKDT
Best Potato Formula	4	"	8	"	6	"
Best Crop Formula	2	"	10	"	6	"
Eastern Shore Potato Special	7	"	6	"	5	"
Excelsior Guano	2	"	8	"	5	"
Stable Manure Substitute	3	"	7	"	4	"
Best Grain and Grass Formula	2	"	10	"	4	"
Champion Grain Grower	1	"	8	"	4	"
Fish and Bone Compound	2	"	8	"	3	"
Grain and Grass Grower	1	"	9	"	3	"
Premium Grain and Clover Mixture	2	"	12	"	2	"
Eagle Crop Grower	2	"	8	"	2	"
Ammoniated Crop Compound	1	"	8	"	2	"
Special Formula (Low Grade)	½	"	8	"	2	"
Reliable Guano	1	"	8	"	1	"
Strawberry and Pea Special	7	"	6	"	1	"
Special Formula (Low Grade)	½	"	8	"	1	"
Fish and Bone Special	2	"	11	"	0	
Champion Amm'd Phosphate	2	"	10	"	0	
Special Fish Guano	1	"	10	"	0	
Grain Rel. Amm'd Formula (L. Gr.)	½	"	10	"	0	
Formula for Wheat and Corn	0		10	R	5	"
Special Potash Mixture	0		8	"	4	"
Prize Alkaline Phosphate	0		12	"	3	"
Alkaline Mixture (Low Grade)	0		8	"	3	"
Premium Phosphate and Potash	0		12	"	2	"
Dissolved Phosphate and Potash	0		10	"	2	"
Phosphate and Potash (Low Grade)	0		10	"	1	"
H. G. Acid Phosphate	0		16		0	

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
American Fertilizing Co., Balto., Md.			
Acid Phosphate	0	14	0
Early Truckers Special	5 TNCAt	6 RB	5 NMKDT
Armour Fertilizer Works, Balto., Md.			
Acid Phosphate 16%	0	16	0
Phosphate and Potash No. 1	0	10 R	2 MSK
Wheat and Clover	0	10 "	5 "
Grain Special	2 TANb	10 RTb	0
Cereal Special No. 4	2 "	12 "	0
Wheat, Corn and Oats Spec. (L. Gr.)	1 Tb	7 "	1 "
Crop Grower	1 "	8 "	2 "
Raw Ammoniated	1 "	8 "	4 "
Grain Grower	2 TANb	8 "	2 "
Cereal Special No. 3	2 TAN	12 RT	2 "
Cereal Special No. 2	2 "	10 "	4 "
Cereal Special No. 1	2 "	10 "	6 "
Potato and Vegetable Special	4 TANb	8 RTb	4 "
Potato Grower	4 "	10 "	0
Fruit and Root Crop Special	2 TAN	8 RT	5 "
5-8-3	5 ADTN	8 "	3 "
Truckers Favorite	5 "	8 "	5 "
7-6-3	7 "	6 "	3 "
7% Trucker	7 "	6 "	5 "
Tobacco Special	3 DAN	8 R	3 S
Gold Medal for Tobacco	2½ "	8 "	3 "
Bone Meal	3	22.*	0
Raw Bone Meal	4½	21.50*	0
Nitrate of Soda	18.	0	0
Tuscarora Brands—			
Acid Phosphate	0	16	0
Phosphate and Potash	0	10 R	2 MSK
Alkaline	0	10 "	5 "
Grain Special	2 TANb	10 RTb	0
Cereal Special No. 4	2 "	12 "	0
Ammoniated Phosphate (L. Gr.)	1 Tb	7 "	1 "
Crop Grower	1 "	8 "	2 "
York State Special	1 "	8 "	4 "
Standard	2 TANb	8 "	2 "
Big 4	2 TAN	7 RT	4 "
Cereal Special No. 3	2 "	12 "	2 "
Cereal Special No. 2	2 "	10 "	4 "
Cereal Special No. 1	2 "	10 "	6 "
Associated Chem. Co., Hagerstown, Md.			
Fine Bone Meal	3	23.*	0
Nitrate of Soda	18.20	0	0
Barrett Company, New York, N. Y.			
Arcadian Sulfate of Ammonia	25.25	0	0
Baugh & Sons Co., Balto., Md.			
Raw Bone Meal	4	18.30*	
Pure Steamed Bone	2	25.*	
Half and Half Mixture	1½ B	12 RB	0
Acid Phosphate 16%	0	16	0
Acid Phosphate 14%	0	14	0
Phosphate and Potash Mixture	0	12 R	5 KD
Soluble Alkaline Super Phosphate	0	10 "	2 KD
Nitrate of Soda	18.50	0	0
Tankage	7	0	0
7% Potato Guano	7 BDTAF	6 RBT	5 "
Maximum Potato Guano	7 "	6 "	3 "
Peruvian Guano Substitute	5 "	6 "	5 "
Tri-Unit Potato Guano	5 "	8 "	3 "
Fish, Bone and Potash	4 "	8 "	4 "
Grand Rapid Guano	3 "	8 "	3 "
Complete Animal Base Fertilizer	2 "	8 "	5 "
Animal Base and Potash Componud	2 "	8 "	2 "
Tomato Compound	2 "	8 "	2 "
Fish Mixture	2 "	8 "	2 "
Double Eagle Phosphate	2 "	9 "	1 "
Excelsior Guano	1 "	8 "	4 "
General Crop Grower	1 "	8 "	1 "
Special Potato Manure	2 "	8 "	5 "
Wheat Fertilizer	2 "	8 "	2 "

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
Baugh & Sons Co., Balto., Md.			
New Process 10% Guano	10 BDTAF	5 RBT	0
Truckers' Favorite	3 "	10 "	0
Corn and Oats Fertilizer	2 "	10 "	0
Fish, Bone Guano	2 "	10 "	0
Old Stand-By	2 "	12 "	0
Peninsula Grain Producer (L. Gr.)	1 "	9 "	0
Ground Fish	10	5.*	0
Muriate of Potash	0	0	48
Genuine German Kainit	0	0	12.40
Bryant Fertilizer Co., Alexandria, Va.			
Queen Ammoniated Bone	1 TNCAt	8 R	1 NKDTM
Special Wheat Mixture	1 "	9 "	2 "
Bone Ammoniated	2 "	10 "	0
Slaughter House Bone	1¼ "	10 "	0
Formula "E"	2 "	8 "	2 "
Victor Tobacco Fertilizer	3 "	8 "	3 "
Tobacco Bed Fertilizer	7 "	6 "	1 "
H. G. Potash Mixture	0	10 "	4 "
Bone and Potash Mixture	0	10 "	2 "
16% Phosphate	0	16	0
S. C. Dissolved Bone	0	14	0
Pure Raw Bone	4½	20.60*	0
Central Chemical Co., Hagerstown, Md.			
Valley Mixture (Low Grade)	2 CATt	8 R	2 MD
Dissolved Bone Compound	2¼ TN	13 RT	0
Planters Compound	2 ACNt	10 R	0
Fish Compound	1½ FTA	10 "	0
Superior	1 ACt	12 "	0
Pride of the Valley	1 "	10 "	0
Acme Brand (Low Grade)	1 "	8 "	0
Dissolved Phosphate	0	16	0
Chesapeake Chemical Co., Balto., Md.			
7-6-5 Special	7 NTA	6 "	5 MKD
5-6-5 Special	5 NTAt	6 "	5 "
Favorite Producer	3 NTA	10 "	0
Fish Tobacco Guano	3 "	8 "	3 "
Favorite Guano	2 "	10 "	2 "
Ammoniated Phosphate	2 "	10 "	0
2-8-5 Special	2 "	8 "	5
2-8-3 Special	2 "	8 "	3
National Crop Grower	2 "	8 "	2 "
Buyers Favorite	1 T	10 "	0
1-8-3 Fertilizer	1 "	8 "	3 "
Money Producer	1 "	8 "	1 "
Gem Phosphate (Low Grade)	1 "	8 "	0
1-7-4 Fertilizer	1 "	7 "	4 "
½-7-0 Fertilizer (Low Grade)	½ "	7 "	0
Alkaline Mixture	0	12 "	2 "
H. G. Potash Mixture	0	10 "	4 "
Reliable 10-2 Fertilizer	0	10 "	2 "
16% Dissolved Phosphate	0	16	0
14% Dissolved Phosphate	0	14	0
Fish and Potash Mixture (L. Gr.)	½ T	8 "	2 "
7-8-5 Special	7 NTA	8 "	5 "
Chicago Feed and Fert. Co., Chicago, Ill.			
Magic Br. Pul. Sheep Manure (L. Gr.)	2¼ m	1½ m	1¼ m
Columbia Guano Co., Balto., Md.			
14% Acid Phosphate	0	14	0
16% Acid Phosphate	0	16	0
8-5 Phosphate and Potash	0	8 R	5 MKD
10-2 Phosphate and Potash	0	10 "	2 "
12-5 Phosphate and Potash	0	12 "	5 "
Gem Brand	1 TF	10 RT	0
Glory Brand	1 "	12 "	0
Duplex Brand	2 AFT	10 "	0
Congress Brand	3 "	9 "	0
Goodwill Guano	1 TF	8 "	1 "
Capital Guano	1 "	8 "	2 "
Extra Dry Guano	1 "	8 "	3 "
Soluble Guano	2 AFT	8 "	2 "
Fish and Potash	2 "	8 "	3 "
Prize Guano	2 "	8 "	5 "

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
L. E. P. Dennis & Son, Cristfield, Md.			
7% Potato Grower	7 NAFb	6 R	5 MK
Round Potato Mixture	5 "	6 "	5 "
No. 1 Fish Mixture	3 "	7 "	5 "
Economy Fish Mixture	2 "	8 "	3 "
Klondike Fish Mixture	1 "	10 "	2 "
Eastern Guano Co., New York, N. Y.			
Farmers' Compound	2 NACt	10 "	0
Fish Mixture	1½ FTA	10 "	0
Crop Grower (Low Grade)	1 ACt	8 "	0
Farmers' Pride	2 CATt	8 "	2 MD
Dissolved Phosphate	0	16	0
Farm. Fert. and Feed Co., Westminster.			
High Grade	2 TNAt	11 "	2 ND
Farmers Best	2 "	11 "	0
No. 2 Phosphate	2 "	9 "	2 "
No. 3 Phosphate	1½ "	8 "	2 "
XX Phosphate	1 "	9 "	2 "
Indian Chief	1 "	11 "	0
Acid Phosphate	0	16	0
Farmers & Planters Co., Salisbury, Md.			
High Grade 7%	7 AFb	6 "	5 M
Early Vegetable	5 "	8 Rb	5 "
Early Truck	4 "	8 "	4 "
Trucker's Mixture	3 "	8 "	4 "
Special Fish Mixture	2 "	8 "	5 "
Fish Mixture	2 "	8 "	2 MK
Wheat and Grass Special	1 "	10 "	5 "
General Crop Grower	1 "	10 "	2 "
Special Potash Mixture	0	12 "	5 "
Peerless (Low Grade)	½ Ab	8 "	2 K
Fertile Chem. Co., Cleveland, Ohio.			
Nitro-Fertile (Low Grade)	2	3	3
Griffith & Boyd Co., Balto., Md.			
Blood, Bone and Potash	5 NDTAt	8 RT	3 NK
Stable Manure Substitute	3½ "	5 "	4 "
Fish, Bone and Potash	1.75 NFTb	7 RTF	2 "
Royal Potash Guano	1 NTb	8 RT	4 "
Peerless Fert. (Low Grade)	½ Tb	8 "	2 "
Blood and Bone Mixture	4 NTADb	9 "	0
Farmers Mixture	2 NTAb	9 "	0
Fish and Bone Mixture (L. Gr.)	1.75 NTFb	7 RFT	0
Peerless Mixture (Low Grade)	½ Tb	8 RT	0
Farmers' Queen	1 NTb	9 "	3 "
Queen Guano (Low Grade)	1 "	9 "	0
Cereal Plant Food	1 "	8 "	2 "
Grain and Grass Grower	2 NTAb	12 "	0
Farmers' Gem	1 NTb	10 "	0
Dissolved Animal Bone	2½	10	0
H. G. 16% Acid Phosphate	0	16	0
Special Grain Grower	0	10 R	2 "
Pure Fine Ground Bone Meal	4	20*	0
Soft Ground Bone Meal	3	11*	0
Farmers' Potato Manure	1 NTb	8 RT	6 "
Special Guano	2 NDTAb	8 "	5 "
Special Formula	2 "	10 "	4 "
Standard Guano	2 "	12 "	2 "
Hampstead Fert. Co., Hampstead, Md.			
1-10	1 TNAm	10 "	0
1-8-2	1 "	8 "	2 KMDm
S. M. Hess & Bro., Inc., Phila., Pa.			
Acid Phosphate	0	14	0
Acid Phosphate	0	16	0
Soluble Phosphate and Potash	0	10 FTR	2 MSN
Farmers' Cereal King	0	12 "	3 "
Ammoniated Grain Grower (L. Gr.)	1 TFMAN	8 "	0
Standard Super Phosphate	1 "	10 "	0
Superior Super Phosphate	2 "	10 "	0
Keystone Phosphate	1 "	8 "	1 "
Special Corn Manure	1 "	8 "	2 "
Wheat and Grass Manure	1 "	8 "	1 "
Special Compound	1 "	8 "	4 "

FIRM AND BRANDS	FIRM AND BRANDS		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
S. M. Hess & Bro., Inc., Phila., Pa.			
Farmers' General Fert. 1916	1 TFMAN	10 FTR	1 MSN
Fish and Potash Manure	2 "	8 "	3 "
Potato Crop Producer	5 "	8 "	4 "
Special Trucking Manure	7 "	6 "	3 "
Strawberry Top Dresser	7 "	6 "	5 "
Peninsula Special Manure	5 "	7 "	5 "
Hubbard Fertilizer Co., Balto., Md.			
Tobacco Bed Fertilizer	10 NTAt	2 R	0
5% Royal Seal	5 "	6 "	5 MKD
Ammoniated Fertilizer	3 NTA	10 "	0
Yellow Wrapper	3 "	8 "	3 KN
Improved Guano	2 "	10 "	2 "
Excelsior Mixture	2 "	10 "	0
Money Makers Fertilizer	2 "	8 "	5 "
Standard Phosphate	2 "	8 "	3 "
Farmers' I X L	2 "	8 "	2 "
Oriental Guano	1 T	10 "	0
1-8-3 Fertilizer	1 "	8 "	3 "
English Compound	1 "	8 "	1 "
Columbia Phosphate (Low Grade)	1 "	8 "	0
Climax Phosphate	1 "	7 "	4 "
½-7-0 Fertilizer (Low Grade)	½ "	7 "	0
Alkaline Mixture	0	12 "	2 "
H. G. Potash Mixture	0	10 "	4 "
Phosphate and Potash	0	10 "	2 "
16% Phosphate	0	16	0
14% Phosphate	0	14	0
7-9-0 Fertilizer	7 "	9 "	0
5-8-0 Fertilizer	5 "	8 "	0
Huston, Darbee & Co., Seaford, Del.			
Potato Mixture	6 AF	7 "	5 M
7%	7 "	6 "	5 "
Potato Mixture	5 "	8 "	5 "
Truck Guano	4 "	8 "	2 D
Trucker	3 FN	9 "	2 "
Fish Mixture	2 F	9 "	2 "
Sweet Potato Mixture	2 FN	9 "	5 M
Crop Grower	1 Tb	9 "	2 D
Wheat Special	0	12 "	3 "
Pea Mixture	2 F	9 "	2 "
Tomato Mixture	2 FT	9 "	2 "
Lister's Agr'l Chem. Wks., Newark, N. J.			
Buyers Choice Acid Phosphate	0	14	0
H. G. Acid Phosphate	0	16	0
Special Compound (Low Grade)	0	8 RFT	3 MSCs
Grain and Grass Fert. Revised	0	10 "	2 "
Soluble Crop Grower	0	12 "	3 "
Plant Food 1916	1 TFMAN	10 "	0
Crescent Amm'd Superphos. 1916	2 "	10 "	0
Special Crop Producer (L. Gr.)	1 "	7 "	1 "
Harvest Queen Phos. Revised	1 "	9 "	3 "
G. Brand	1 "	8 "	4 "
Corn and Potato Fertilizer	2 "	8 "	3 "
Standard Pure Superphosphate	2 "	9 "	2 "
Golden Sheaf	1 "	8 "	1 "
Special Tobacco Fertilizer	2 "	8 "	3 "
Special Vegetable Manure	4 "	8 "	3 "
Early Market Truck Grower	5 "	7 "	3 "
Quick Acting Fertilizer	10 "	5 "	0
Special 7% Potato Guano	7 "	6 "	5 "
Medford Fert. Works, Medford, Md.			
Number 1	1 t	10 R	0
Number 2	1 "	8 "	1 NC
Miller Fertilizer Co., Balto., Md.			
No. 1 Potato and Vegetable Grower	4 ANDTt	8 RB	4 KMD
Standard Phosphate	3 "	8 "	3 "
Pimlico	3 "	9 "	2 "
Farmers' Profit	2 ANTt	10 "	4 "
Unexcelled	2 "	10 "	2 "
No. 1 Special	2 "	10 "	0
Potato and Vegetable Grower	2 "	9 "	3 "

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
Miller Fertilizer Co., Balto., Md.			
Acme	2 ANTt	9 RB	1 KMD
Ammoniated Dissolved Bone	2 "	8 "	2 "
Clermont	1 ANt	10 "	2 "
Harvest Queen	1 "	9 "	3 "
Hustler Phosphate	1 "	8 "	1 "
Club Brand (Low Grade)	½ "	8 "	2 "
H. G. Potato Fertilizer	7 ANDTt	6 "	5 "
Vegetable Compound	5 "	8 "	5 "
Alkaline Mixture	0	12 "	2 "
Clinch Phosphate	0	10 "	2 "
Acid Phosphate 16%	0	16	0
Acid Phosphate 14%	0	14	0
Natural Guano Co., Aurora, Ill.			
Pulverized Sheep Manure (L. Gr.)	2.75	1	1½
J. B. Nichols & Son, Balto., Md.			
Farmers' Friend Fertilizer	4 NT	7 TR	1 N
G. Ober & Sons Co., Balto., Md.			
Special Plant Food	2 TANF	9 RFT	5 MN
Sea Bird Guano	2 "	10 "	4 "
Stag Guano	1 "	9 "	4 "
Farmers' Standard	2 "	9 "	2 "
Sol. Amm'd Super Phosphate	2 "	8 "	2 "
Farmers' Mixture	1 "	9 "	2 "
Independent Amm'd Super Phos	1 "	8 "	1 "
Golden Seal Tobacco Guano	3 "	8 "	1 N
Royal Fish and Potash Compound	2 "	9 "	1 MN
Avondale Amm'd Dissolved Bone	2 "	8 "	1 "
Md. Pride Tob. Bed Guano 6%	6 "	6 "	6 "
Spec. Tob. Bed Fert. 10%	10 "	4 "	6 "
Vim Potash Compound	0	12 R	5 "
Standard Potash Compound	0	12 "	4 "
Peerless Potash Compound	0	12 "	2 "
10% Super Phos. and Potash	0	10 "	2 "
Fish and Blood Mixture	3 "	9 RFT	0
Climax-Amm'd Compound	2 "	12 "	0
Electro Compound	1 "	10 "	0
Liberty Fish Guano	1¼ "	13 "	0
Sun Beam Guano	2 "	10 "	0
Pure Raw Bone Meal	4½	21*	0
Pure Bone Meal	3	22*	0
H. G. Acid Phosphate 16%	0	16	0
Dissolved Phosphate	0	14	0
Edelen's Wheat and Grain Mixture	1 TANF	8 RFT	1 MN
" Special Tobacco Guano	3 "	8 "	1 "
" H. G. Tobacco Guano	4 "	6 "	1 "
" Spec. Tob. Bed Fert. 10%	10 "	4 "	0
Oyler & Spangler Fert. Wks., Gettysb'g.			
Special	2 CTB	11 R	0
Superphosphate (Low Grade)	1 TCt	9 "	0
16%	0	16	0
Patapsco Guano Co., Balto., Md.			
Pure Dissolved S. C. Phos	0	14	0
H. G. Acid Phosphate	0	16	0
Soluble Phosphate and Potash	0	10 RTF	2 MSTc
Baltimore Soluble Phosphate	0	12 "	3 "
Farmers' Delight (Low Grade)	1 TFMSN	8 "	0
Ammoniated Compound	1 "	10 "	0
Golden Crop Fert. 1916	2 "	10 "	0
Truckers' Delight	3 "	10 "	0
General Crop Producer (L. Gr.)	1 "	7 "	1 "
Blood, Bone and Potash Rev	1 "	8 "	1 "
Sea Gull Guano	1 "	8 "	1 "
Coon Brand Guano 1916	1 "	9 "	1 "
Money Maker	1 "	8 "	2 "
Vegetator	1 "	9 "	2 "
Grain and Grass Producer	1 "	8 "	4 "
Big Chief Brand with Potash	1 "	9 "	3 "
Planters' Delight	2 "	8 "	2 "
Tob. and Potato Fert. Revised	2 "	8 "	3 "
Vegetable and Corn Fertilizer	2 "	8 "	4 "
Tobacco Fertilizer 1916	3 "	9 "	2 "

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
Patapsco Guano Co., Balto., Md.			
Potato Manure with Potash	4 TFMSN	8 RTF	3 MSTc
Plant Bed Fertilizer	10 "	5 "	2 "
Fine Ground Bone	3	22.88*	0
Basic Lime Phosphate (L. Gr.)	0	13	0
Nitrate of Soda	18.23	0	0
Phospho Potash (Low Grade)	0	6 RTF	3 "
Pocomoke Guano Co., Norfolk, Va.			
Seaboard Popular Trucker	7 TFANM	6 "	5 "
Arrow Head Truck Guano	5 "	7 "	5 "
10-2 Potash Mixture	0	10 R	2 "
Rasin-Monumental Co., Balto., Md.			
Best Truck and Vegetable Formula	4 TNCANa	10 RB	6 NMKTD
Best Potato Formula	4 "	8 "	6 "
Best Crop Formula	2 "	10 "	6 "
Eastern Shore Potato Special	7 "	6 "	5 "
Early Truckers' Special	5 "	6 "	5 "
All Crop Guano	1 "	10 "	5 "
Best Grain and Grass Formula	2 "	10 "	4 "
National Crop Compound	1 "	8 "	4 "
Royal Fish Bone and Potash	2 "	8 "	3 "
Capital Crop Compound	1 "	9 "	3 "
Capital Grain and Clover Compound	2 "	12 "	2 "
Empire Guano	2 "	8 "	2 "
United Grain Grower	1 "	8 "	2 "
Wht., Corn and Oats Mix. (L. Gr.)	½ "	8 "	2 "
Wm. Penn Crop Grower	1 "	8 "	1 "
Royal Manure (Low Grade)	½ "	8 "	1 "
Special Fish and Bone Guano	2 "	11 "	0
Special Crop Preparation	2 "	10 "	0
Special Fish Mixture	1 "	10 "	0
Royal Amm'd Superphos (L. Gr.)	½ "	10 "	0
Special Phosphate and Potash	0	10 R	5 "
Special Potash Mixture	0	8 "	5 "
Soluble Alkaline Phosphate	0	12 "	3 "
Special Alkaline Mixture (L. Gr.)	0	8 "	3 "
Victoria Phosphate and Potash	0	12 "	2 "
Phosphate and Potash Fertilizer	0	10 "	2 "
Phosphate and Potash (Low Grade)	0	10 "	1 "
16% Acid Phosphate	0	16	0
Acid Phosphate	0	14	0
Seawall Special (Low Grade)	0	10 "	0
Reindollar Co., Taneytown, Md.			
Ammoniated Phosphate	2 TN	12 "	0
Rock and Potash	0	12 "	2 KM
Acid Phosphate	0	16	0
F. S. Royster Guano Co., Balto., Md.			
14% Acid Phosphate	0	14	0
16% Acid Phosphate	0	16	0
8-5 Phosphate and Potash	0	8 "	5 MKD
10-2 Phosphate and Potash	0	10 "	2 "
10-4 Phosphate and Potash	0	10 "	4 "
12-3 Phosphate and Potash	0	12 "	3 "
12-5 Phosphate and Potash	0	12 "	5 "
Purity Brand (Low Grade)	1 FT	8 RT	0
Royal Blue Brand	1 "	10 "	0
Prime Fish Brand (Low Grade)	2 AFT	8 "	0
Honor Brand (Low Grade)	2 "	8 "	0
Keystone Brand	2½ "	12 "	0
Simplex Brand	3 "	9 "	0
Defender Brand	4 "	8 "	0
5% Trucker	5 "	8 "	0
6% Trucker	6 "	8 "	0
7% Trucker	7 "	8 "	0
Cuckoo Guano	1 FT	8 "	1 "
Economy Guano	1 "	8 "	2 "
Wonder Guano	1 "	8 "	3 "
Fish and Potash	2 AFT	8 "	1 "
Dreadnought Guano	2 "	8 "	2 "
Fish, Flesh and Fowl	2 "	8 "	3 "
Bully Guano	2 "	8 "	5 "
Vim Guano	2 "	12 "	2 "

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
F. S. Royster Guano Co., Balto., Md.			
Angelus Guano	5 AFT	8 RT	3 MKD
Ripper Potato Guano	5 "	7 "	5 "
Supreme Trucker	7 "	6 "	3 "
Arrow 7% Potato Guano	7 "	6 "	5 "
Scott Fertilizer Co., Elkton, Md.			
Sure Growth Compound	4 FNT	8 R	4 M
Sure Crop Grower	3 "	8 "	4 "
Potato and Truck	3 "	9 "	2 "
Victory Brand	2 TAt	8 "	3 "
Potato Grower	2 DAT	10 "	4 "
Sure Growth Superphosphate	2 TAt	8 "	2 "
Ammoniated Base	2 TAD	10 "	0
Standard	1 Tt	9 "	3 "
Pennsylvania Potato Grower	1 ATt	8 "	2 "
Special Grain Grower	1 "	8 "	1 "
Wheat and Grass Grower (L. Gr.)	½ Tt	8 "	2 "
Soluble Phosphate and Potash	0	12 "	2 "
Sears, Roebuck & Co., Chicago, Ill.			
Reputation Brand Acid Phosphate	0	16	0
John N. Somers, Crisfield, Md.			
Diamond Brand Crab Scrap (L. Gr.)	3	3	0
Wm. H. Streett & Co., Fallston, Md.			
Special Crop Grower	1½ ANt	9 R	2 MD
Ammoniated Dissolved Bone	1½ "	9 "	1 "
High-Grade Bone Phosphate	2 ANTt	10 "	4 "
Standard	1 ANT	8 "	1 "
Acid Phosphate 16%	0	16	0
Swift & Co., Balto., Md.			
Favorite Trucker	7 NAT	7 "	0
Fall Potato Grower	4 "	8 "	4 NCSk
Wheat and Corn Grower	2 "	12 "	2 "
Clay Soil Special	2 "	12 "	0
Special Wheat Fertilizer	1 "	11 "	4 "
Reliable Grain Fertilizer	1 "	8 "	1 "
Grain Fertilizer	1 "	8 "	2 "
Special H. G. Phos. and Potash	0	12 "	5 "
Monarch Phosphate and Potash	0	12 "	3 "
Wheat Grower Phos. and Potash	0	12 "	2 "
Special Phosphate and Potash	0	10 "	2 "
High-Grade Acid Phosphate	0	16	0
Garden City Phosphate	0	14 "	0
Raw Bone Meal	4½	23.*	0
Bone Meal and Phos. Mixture No. 2	1½ "	13 "	0
Bone Meal and Phosphate Fertilizer	1 "	13 "	0
Ground Dried Blood	16		0
High-Grade Tankage	10	0	0
Nitrate of Soda	18	0	0
Sulfate of Ammonia	25	0	0
Hummer	7 "	6 "	5 "
High-Grade Trucker	7 "	6 "	3 "
Top Dresser Formula No. 1	7 "	8 "	0
Early Potato Grower	5 "	8 "	5 "
Special Formula	5 "	8 "	3 "
Special Truck Fertilizer	5 "	8 "	0
Truck and Potato Fertilizer	4 "	8 "	0
Southern Planter's Favorite	3 "	8 "	3 "
Matchless	2 "	8 "	4 "
Standard Potato Fertilizer	2 "	8 "	3 "
Canning Crop Fertilizer	4 "	8 "	4 "
High-Grade Special No. 1	3 "	10 "	3 "
Special Diamond "A" Fertilizer	3 "	8 "	0
Royal Tomato Grower	2 "	7 "	5 "
Red Steer	2 "	8 "	2 "
Plant Bed Fertilizer	5 "	8 "	2 "
High Grade Special No. 2	3 "	12 "	3 "
Special Corn Grower	2 "	10 "	0
No. 2 High-Grade Grain Grower	2 "	10 "	4 "
Special Top Dresser	10 "	5 "	0
Early Trucker	5 "	7 "	5 "
Bone Meal Fertilizer	3	24.*	0
Farmers' Home	0	10 "	4 "

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
Tanners' Hide & Tallow Co., Hagerstown.			
Bone Phosphate (Low Grade)	2 B	8 R	0
Tankage (Low Grade)	5	0	0
H. S. Taveau & Co., Balto., Md.			
Strawberry Top Dressing	4 N	5 "	1 NCSk
Pride of Virginia	1 FTb	8 RB	1 "
Pride of Maryland	1 "	10 "	1 "
Allerton Guano	1 "	8 "	2 "
Sweet Potato Manure	2 AFTb	9 "	1 "
Florida Phosphate	0	14	0
Tenn. Agr'l Chem. Corp., Columbia, Tenn.			
Tacco Ground Phosphate	0	32.*	0
Tenn. C., I. & R. R. Co., Birmingham, Ala.			
Duplex Basic Phosphate	0	14	0
Wm. B. Tilghman Co., Salisbury, Md.			
Fish, Bone and Potash	1 FBt	10 RF	2 K
Grain Potash Mixture	1 "	10 "	5 MK
Standard Fish Mixture	2 FNt	10 "	2 K
Standard Tomato Mixture	2 "	8 "	4 "
Special Fish for Sweet Potato	2 "	7 "	5 MK
3-8-3 Fertilizer	3 "	8 "	3 K
Sweet Potato Fertilizer	3 "	8 "	5 MK
Mixture "B"	4 FNAt	8 "	4 K
Special Truck Mixture	5 "	8 "	3 "
High-Grade Early Truck Guano	5 "	8 "	5 MK
White Potato Mixture	7 "	8 "	3 K
Irish Potato Guano	7 "	6 "	5 MK
Special Top Dressing	6 N	0	0
Pure Raw Bone Meal	4½	0	0
Acid Phosphate	0	16	0
J. E. Tygert Co., Phila., Pa.			
14% Acid Phosphate	0	14	0
16% Acid Phosphate	0	16	0
Big Crop Grower Revised (L. Gr.)	0	8 R	3 MSTC
Soluble Phosphate and Potash	0	10 "	2 "
Pawnee Phosphate (Low Grade)	1 TFMAN	8 RFT	0
Ammoniated Fertilizer "A"	1 "	10 "	0
Ammoniated Fertilizer "AA"	2 "	10 "	0
Ammoniated Fertilizer "AAA"	3 "	10 "	0
Great Advancer Phosphate, 1916	4 "	10 "	0
Prolific Fertilizer	1 "	8 "	1 "
Golden Harvest Phosphate	1 "	8 "	2 "
Victor Crop Grower	1 "	8 "	4 "
Neptune Fish Compound	1 "	9 "	3 "
Standard Fertilizer	2 "	8 "	2 "
Gold Edge Potato Guano Revised	2 "	8 "	4 "
Special Potato and Tomato Guano	3 "	8 "	4 "
Early Truck Guano	4 "	8 "	3 "
Potato Fertilizer	4 "	8 "	4 "
5-7-3 Fertilizer	5 "	7 "	3 "
5% Potato Guano	5 "	7 "	5 "
Jetco Brand	5 "	8 "	4 "
7-6-3 Fertilizer	7 "	6 "	3 "
7% Potato Guano	7 "	6 "	5 "
W. H. Valliant & Bro., Bellevue, Md.			
Crab Phosphate (Low Grade)	2 c	2 c	0
Fish Mixture (Low Grade)	2 F	5 R	2 a
King Crop Grower	2 "	8 "	2 "
Tomato Grower (Low Grade)	2 "	5 "	1 "
Wheat Special	1 "	8 "	1 "
16% Acid Phosphate	0	16	0
Va.-Carolina Chem. Co., Richmond, Va.			
Best Truck and Vegetable Formula	4 TNCANat	10 RB	6 NMKDT
Best Potato Formula	4 "	8 "	6 "
Best Crop Formula	2 "	10 "	6 "
Eastern Shore Potato Special	7 "	6 "	5 "
Early Truckers' Special	5 "	6 "	5 "
Best Grain and Grass Formula	2 "	10 "	4 "
Nat'l Ammoniated Guano	1 "	8 "	4 "
Fish, Bone and Potash	2 "	8 "	3 "
One Nine Three	1 "	9 "	3 "
Great Grain and Clover Mixture	2 "	12 "	2 "

FIRM AND BRANDS	PER CENT AND SOURCES OF		
	Ammonia (or Nitrogen)	Phosphoric Acid Available	Potash Soluble
Va.-Carolina Chem. Co., Richmond, Va.			
Standard Crop Grower	2 TNCANat	8 RB	2 NMKDT
Standard Grain Grower	1 "	8 "	2 "
Standard Corn and Grain Gr. (L. Gr.)	½ "	8 "	2 "
Special Compound	1 "	8 "	1 "
Champion Manure (Low Grade)	½ "	8 "	1 "
Fish and Bone Mixture	2 "	11 "	0
Special Crop Formula	2 "	10 "	0
Special Fish Preparation	1 "	10 "	0
Star Crop Producer (Low Grade)	½ "	10 "	0
Special Phosphate and Potash	0	10 R	5 "
Special Potash Mixture	0	8 "	5 "
Special Soluble Alkaline Phosphate	0	12 "	3 "
Alkaline Mixture (Low Grade)	0	8 "	3 "
Soluble Alkaline Compound	0	12 "	2 "
Standard Phosphate and Potash	0	10 "	2 "
Phosphate and Potash (L. Gr.)	0	10 "	1 "
16% Acid Phosphate	0	16	0
14% Acid Phosphate	0	14	0
Plant Food	6 "	8 RB	2 "
Westminster Fert. Co., Westminster, Md.			
Super-A (Low Grade)	1 TNA	9 RT	0
Leader	1 "	9 "	1 KDm
Governor	1½ "	11 "	0
Acid Phosphate	0	16	0
H. W. Whistler, Bel Air, Md.			
Dissolved Bone	2 TDNA	10 "	0
Fish, Bone and Potash (Low Grade)	½ "	8 "	¼ MN
F. M. Wilson, Pocomoke City, Md.			
Favorite Truck	5 FNT	8 RF	5 MS
Peninsula Phosphate	2 F	12 "	1 S
Robt. A. Wooldridge Co., Balto., Md.			
Florida Acid Phosphate	0	14	0
High-Grade Acid Phosphate	0	16	0
Basic Lime Phosphate (Low Grade)	0	13	0
No. 1 Phos. and Potash (Low Grade)	0	6 R	3 MSNs
Soluble Phos. and Potash (L. Gr.)	0	8 "	3 "
American Potash Mixture	0	10 "	2 "
Liberty Bell Potash Mixture	0	12 "	3 "
General Crop Grower (Low Grade)	1 TFANM	8 RF	0
Success Fertilizer	1 "	10 "	0
Old Fidelity Phosphate	2 "	10 "	0
Common Sense Super-Phosphate	4 "	10 "	0
Fish Mixture No. 1 (Low Grade)	1 "	7 "	1 "
Ammoniated Phosphate	1 "	8 "	1 "
Champion Stag Phosphate	1 "	9 "	2 "
Triumph Brand Phosphate (Rev.)	2 "	8 "	3 "
Special Potato & Tob. Fert. (Rev.)	2 "	10 "	2 "
A. S. Wooley Co., Inc., Seaford, Del.			
Strawberry Top Dressing	4 NT	9 R	3 D
Fish Mixture	2 FT	9 "	2 "
Truck Fertilizer	3 FNT	8 "	3 MD
Worcester Fert. Co., Snow Hill, Md.			
7% Guano	7 FTNA	6 "	5 MN
Early Trucker	5 "	8 "	5 "
Fish, Bone and Potash	2 FNt	8 "	2 MD
Corn Producer	1 "	10 "	2 "
York Chemical Works, York, Pa.			
Grain Special	2 ANT	12 RT	2 "
Standard Potash	1 "	8 "	4 "
One-Eight-Two	1 "	8 "	2 "
One-Eight-One	1 "	8 "	1 "
Prosperity	2 "	12 "	0
Crop Grower	1 "	10 "	0
Twelve and Four	0	12 "	4 "
Twelve and Two	0	12 "	2 "
Ten and Two	0	10 "	2 "
Superphosphate	0	16	0

BORAX IN FERTILIZERS.

During the season of 1919 the use of potash from two new sources and carrying borax as an impurity, caused considerable damage to crops where such fertilizers were used in large amounts, as on potatoes, cotton and tobacco. Comparatively small amounts of this material were used in Maryland and, now that the facts are known in regard to the harmful effects of this material, the farmers may rest assured that there will be no recurrence of the trouble this year, as the manufacturers are fully informed in regard to the matter and are not looking for trouble. However, for the information of our readers we print the following statement, issued under date of December 9, by the U. S. Department of Agriculture:

"The disastrous results experienced in 1919 by farmers in some sections of the country, where fertilizers containing borax were unwittingly applied, has aroused apprehension that the experience may be repeated in the spring of 1920. This substance, which is highly toxic to crop plants, is not known to have been present in appreciable quantities in the materials commercially available for fertilizers used prior to the war.

"The scarcity of potash during the war, which still continues to a considerable extent, brought into use a product, derived from at least two new sources, which carried enough borax to be harmful to crops if applied in the usual quantities by the methods generally practiced. If there were available sufficient supplies of noncontaminated material to meet the agricultural needs of the country, it would probably be safer for farmers to reject all fertilizers containing appreciable amounts of borax, except in those cases where the applications are relatively light and can be broad-casted or very thoroughly mixed with the soil.

"It appears, however, that a large proportion of the potash salts available for fertilizer use in the spring of 1920 contains more or less borax. Recently, also, it has been discovered that nitrate of soda as imported contains some borax.

"As these conditions have become known, the United States Department of Agriculture and some of the State experiment stations have been actively studying the subject and conducting experiments with a view to determine the extent to which fertilizers containing borax may safely be applied. While the observations and tests of a single season cannot be regarded as final, it appears to be well established that, under intensive use, where the fertilizer is put in the row or hill and the seeds or plants are brought into virtual contact with it, about two pounds per acre of anhydrous borax marks the limit of safety. Where it is broadcasted or thoroughly mixed with the soil, ten pounds of anhydrous borax per acre may be regarded as within the limit of safety.

"The department is now making a very comprehensive survey of all the ordinary fertilizer materials with a view to ascertain whether any of the commercial grades carry injurious amounts of borax or whether mixtures of any two or more of these materials will give rise to excessive quantities of borax in mixed fertilizers.

"In the meantime, and while these investigations are proceeding, in order to protect the people of the United States and to conserve the

food supply, the department, on Ocober 24, 1919, addressed a letter to all brokers, fertilizer manufacturers, and dry mixers, who are under license under the Control Act of August 10, 1917, stating that the department would not permit more than two pounds per ton of anhydrous borax in mixed fertilizers, unless the presence of an excess of this amount is plainly indicated on the container. It was further stated that the purpose of this regulation was to insure that no fertilizer application which would add more than two pounds of borax to the acre would be made by farmers without their knowledge.

"The Secretary of Agriculture, on December 6, 1919, issued a formal order prohibiting the sale of mixed fertilizer containing borax in excess of one-tenth of one per cent. unless the containers are so labeled as to show the percentage of borax present.

"This action was designed to protect the farmer in the use of as much as a ton of fertilizer per acre, applied in the drill, or to give him notice that the material contained borax. If the fertilizer contains more than two pounds of borax per ton, it is thought that it may be safely used, provided proper attention is given to the method of application and the amount applied per acre. If it contains 0.2 per cent. of borax 1,000 pounds per acre may be used in the drill without exceeding the two pounds per acre, the indicated limit of tolerance. If it contains 0.4 per cent. 500 pounds in the drill would not exceed the apparent limit of safety.

"If, on the other hand, the fertilizer is broad-casted and contains 0.5 per cent. borax, then a ton may be applied broadcast without exceeding the limit of 10 pounds per acre of anhydrous borax, the indicated limit of safety for this mode of application. If it contains 1.0 per cent. of borax, then an application of 1,000 pounds per acre broadcast could be made without exceeding the indicated limit of safety for this method.

"It is expected that, since the producers of raw fertilizer materials have been advised of the vital importance of this matter, they will hereafter pay the strictest attention to the method of preparing the materials and to the purification of them, so far as possible, through the elimination of borax. It is also evident that the manufacturers, for their own protection, will buy materials for their different grades of fertilizers on the basis of their borax content, as they now do for the fertilizer constituents of which their different brands are composed."

FERTILIZER REGISTRATION.

The principal difference between the old Fertilizer Law and the new one that went into effect the present year, is that the fertilizer manufacturers are required to state the materials used in making their fertilizer at the time of registration, and requires this information to be published.

In order to save space it seems desirable to use abbreviations for the various substances used, for example, the letter "B" is used instead of the word "Bone." All of the abbreviations are indicated below.

Nitrogen in fertilizers may be guaranteed as its equivalent in Ammonia. The only substances ordinarily used in fertilizers that really contains Nitrogen as Ammonia is Ammonium Sulfate. The other materials contain Nitrogen in some other form, but as it can readily be converted to Ammonia its Ammonia equivalent is generally given. Fourteen pounds of Nitrogen will make or are equivalent to 17 pounds of Ammonia. Thus 0.82 per cent of Nitrogen is the same as 1.00 per cent of Ammonia. Until recently there has not been a great deal of difference in the cost of Ammonia from the different sources, but now the amount of high-grade animal matter, as dried fish, tankage and dried blood, for fertilizer, is very limited and high in price, due to limited supply and the great demand for these substances for feeding purposes. Nitrogen from Nitrate of Soda is among the cheapest forms of Nitrogen. It is very soluble in water, but liable to make a fertilizer moist, because it attracts moisture. Garbage tankage is the cheapest organic Ammoniate, but is rather insoluble and of slow availability. "Base Goods" is fertilizer made from mixing Raw Rock with low-grade animal matter, such as, hair, feathers, etc., and dissolving the mixture with Sulphuric Acid. In this way matter of little value, as fertilizer, in its natural state, is made readily vailable. Phosphoric Acid, as a rule, comes from Dissolved Phosphate Rock, frequently called "Acid Phosphate." In Mixed Fertilizers containing tankage, fish tankage, and similar materials, a small part of the Phosphoric Acid is furnished from this source.

Potash until recently was furnished almost exclusively from Germany either as Sulphate of Potash, Muriate of Potash, Double Manure Salts or Kainit. These sources have not recently been available and an American Potash industry has sprung up, which is now able to furnish at least one-fourth as much Potash as was used five years ago. Some Potash is also furnished from ashes, and as a by-product from Cement Works and from certain organic substances that are rich in Potash; the principal one being Tobacco Stems. All of the Potash recognized in fertilizer analyses must be soluble in water, and the value of water soluble Potash from the various sources is approximately the same, pound for pound, of actual Potash. Potash insoluble in water, such as we have in certain rocks, especially Felspar, is not counted in the fertilizer analysis, as hot water only is used in extracting Potash in the laboratory.

Note the following:

KEY TO SYMBOLS USED.

AMMONIA (Nitrogen)	PHOSPHORIC ACID AVAILABLE	POTASH SOLUBLE
A—Ammonium Sulfate	A—Animal Matter	a—Ashes
B—Bone	B—Bone	C—Cement by-product
b—Base Goods	b—Base Goods	K—Kainit
C—Cyanamid	F—Fish	M—Muriate
c—Crab Scrap	R—Dissolved Rock	m—Sheep Manure
D—Blood	T—Tankage	N—Nebraska Potash (Sulfate and Carbonate)
F—Fish	c—Crab Scrap	S—Sulfate
H—Humus or Peat, Treated	m—Sheep Manure	T—Tobacco Stems
K—Tobacco Stems	*Total Phosphoric Acid in Bone	k—Kelp
M—C. S. Meal	**Total Phosphoric Acid in Untreated Rock	t—Trona (California)
m—Sheep Manure		c—Carbonate
N—Nitrate Soda		B—Sugar Beet Res. Char.
Na—Nitrate of Ammonia		D—Double Manure Salt
T—Animal Tankage		s—Cottonseed-meal
t—Garbage Tankage		
L—Linseed Meal		

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